Sol Orchard Ramona Photovoltaic Solar Farm Project

Biological Resources Letter Report

County of San Diego Project Numbers: 3300-11-029 (MUP); 3910-11-09-009 (ER)
Unincorporated Community of Ramona, San Diego County, California
Assessor's Parcel Number 283-083-07
San Pasqual and Ramona, California USGS 7.5-minute Topographic Quadrangles
Unsectioned, Township 13 South, Range 1 East

Project Proponent:
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Prepared for:

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Surveys Conducted on December 1, 2010 and May 26, 2011
Surveys Conducted by Karl L. Osmundson, Atkins
Mike Gonzales, RBF Consulting

March 27, 2012

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APPENDICES

Chapter 1 EXECUTIVE SUMMARY

Atkins (formerly PBS&J) completed a general biological survey and biological resources letter report for the Sol Orchard – Ramona Photovoltaic Solar Farm Project located in the unincorporated community of Ramona in central San Diego County, California. The project proponent is preparing an application for development and operation of a 7.5-Megawatt photovoltaic solar farm that would serve the Ramona area. The purpose of the surveys and report is to inventory the existing biological conditions on and in the immediate vicinity of the proposed project site, and analyze potential project-related impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resources technical documentation necessary for project review under the California Environmental Quality Act and processing of a Major Use Permit by the County of San Diego Department of Planning and Land Use to allow for the construction, operation, and maintenance of the proposed facilities for the long-term generation of clean renewable energy from solar power.

Atkins biologist Karl Osmundson and RBF biologist Mike Gonzales conducted general biological surveys on December 1, 2010 and May 26, 2011. The survey targeted portions of the property containing Assessor's Parcel Number 283-083-07 and approximately 100 feet beyond these areas, for a total survey area of 74.96 acres. The survey area occurs within the boundaries of the proposed Draft North County Segment Multiple Species Conservation Program (MSCP) Subarea Plan, and specifically, within areas designated as Existing Agriculture and Natural Upland Habitats outside the Pre-Approved Mitigation Area (PAMA). The near entirety of the survey area supports active agricultural lands. Seven vegetation communities or habitat types occur within the survey area: urban/developed land (1.41 acres), disturbed wetland (0.77 acre), non-native grassland: broadleaf-dominated (7.53 acres), field/pasture (25.53 acres), row crops (34.68 acres), intensive agriculture (3.74 acres), and eucalyptus woodland (1.29 acres). The areas mapped as disturbed wetland contain potential jurisdictional waters and wetlands subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Game, and/or the County of San Diego pursuant to their Resource Protection Ordinance. Due to the low quality of the habitat and associated land uses within the survey area, no special-status plant species were determined to have a high potential to occur within the survey area. A single special-status wildlife species, turkey vulture (*Cathartes aura*), was observed flying over the survey area during the December 2010 general survey. Two special-status wildlife species, Coronado Island skink (*Plestiodon skiltonianus interparietalis*) and white-tailed kite (*Elanus leucurus*), were determined to have the potential to nest or reside within the eucalyptus habitat that occurs off-site and to the east of proposed developments, but within the survey area. In addition, five special-status wildlife species were determined to have a potential to forage over portions of the survey area.

The proposed project would result in a total of approximately 45.50 acres of on-site impacts to existing developed land and non-native habitat types. No off-site impacts would occur. With the exception of field/pasture lands and non-native grassland: broadleaf-dominated, the project would not result in any impacts to native or naturalized habitat types that have been assigned a mitigation ratio and/or that require habitat-based compensatory mitigation in accordance with County of San Diego requirements and other policies. Due to avoidance and the lack of suitable habitat within and immediately adjacent to the impact areas, no special-status plant or wildlife species are anticipated to be directly adversely affected by the proposed project. Potential indirect impacts as a result of construction activities in proximity to habitat and loss of foraging habitat would be mitigated through breeding season avoidance and off-site acquisition and preservation of habitat. Nesting bird species protected under the federal Migratory Bird Treaty Act and California Fish and Game Code could be adversely affected by the proposed project if removal of suitable nesting habitat would occur during the general breeding season (January 15 through August 30). The potential jurisdictional waters and wetlands in the northern portion of the survey area would be avoided and would not be adversely affected by the proposed project, either directly or indirectly. No impacts would occur to wildlife corridors or nursery sites. The project does not occur within the boundaries of any adopted Natural Communities Conservation Plans/Habitat Conservation Plans or other plans for the long-term conservation and preservation of biological resources. The project does not occur within or adjacent to the preserve lands and would not result in the introduction of any non-native invasive plant species into the area. With the implementation of the mitigation identified herein, the project would not conflict with any local policies and ordinances.

Mitigation measures are proposed herein to compensate the loss of field/pasture lands and non-native grassland through off-site acquisition and preservation of habitat at a 0.5:1 ratio in accordance with County of San Diego requirements. In addition, mitigation measures are proposed herein to restrict project construction to periods outside of the general breeding season for nesting birds and raptors, thereby preventing any impacts to nesting birds in violation of the Migratory Bird Treaty Act and California Fish and Game Code. Project construction shall be restricted such that no impacts would occur to the California State fully-protected white-tailed kite should be species be determined present in the immediate vicinity of the proposed impact area.

Chapter 2 INTRODUCTION

At the request of Sol Orchard, LLC., Atkins has prepared a biological resources letter report for the Sol Orchard – Ramona Photovoltaic Solar Farm Project (proposed project) located near the address of 1650 Warnock Drive in the unincorporated community of Ramona, San Diego County, California. The project proponent is preparing an application for development and operation of a 7.5-Megawatt (MW) photovoltaic (PV) solar farm that would serve the Ramona area. This report provides the biological resources technical documentation necessary for project review under the California Environmental Quality Act (CEQA) and processing of a Major Use Permit (MUP) by the County of San Diego Department of Planning and Land Use (County DPLU) to allow for the construction, operation, and maintenance of the proposed facilities for the long-term generation of clean renewable energy from solar power.

2.1 Project Location

The proposed project site is located just south of the community of Ramona, California, within central San Diego County (Exhibit 1). The project site is depicted on the San Pasqual and Ramona, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps within unsectioned portions of Township 13 South and Range 1 East (Exhibit 2). Specifically, the site is located within privately-held property near the address of 1650 Warnock Drive, east of Ramona Street and west of San Vicente Road (Exhibit 3). The affected Assessor Parcel Number (APN) is 283-083-07. Primary access to the site would occur from the west via Ramona Street.

The project site occurs within the boundaries of the proposed Draft North County Segment Multiple Species Conservation Program (MSCP) Subarea Plan (Draft North County Plan), and specifically, within areas designated as Existing Agriculture and Natural Upland Habitats outside the Pre-Approved Mitigation Area (PAMA). Limited portions of the site are designated as Riparian/Wetland Habitats located outside of PAMA. The project site does not occur on or in the immediate vicinity of any areas designated as PAMA for the Draft North County Plan.

2.2 Project Description

The project proponent is preparing an application for development and operation of a PV solar farm to be located on privately-held lands near Ramona. The project would require approval from the County of San Diego for a MUP to allow for the construction, operation, and maintenance of such facilities for the long-term generation of clean solar energy. The proposed facilities would have an overall production capacity of 7.5 MW (alternating current – AC). The project is expected to supply roughly 10 percent of power at peak load conditions and 20 to 25 percent during lighter load conditions to the Ramona area, depending on the time of day. No export to transmission is anticipated.

08/08/2011 JN25-104980.002 4980-Ramona-regional.mxd RDH

RBF CONSULTING GIS

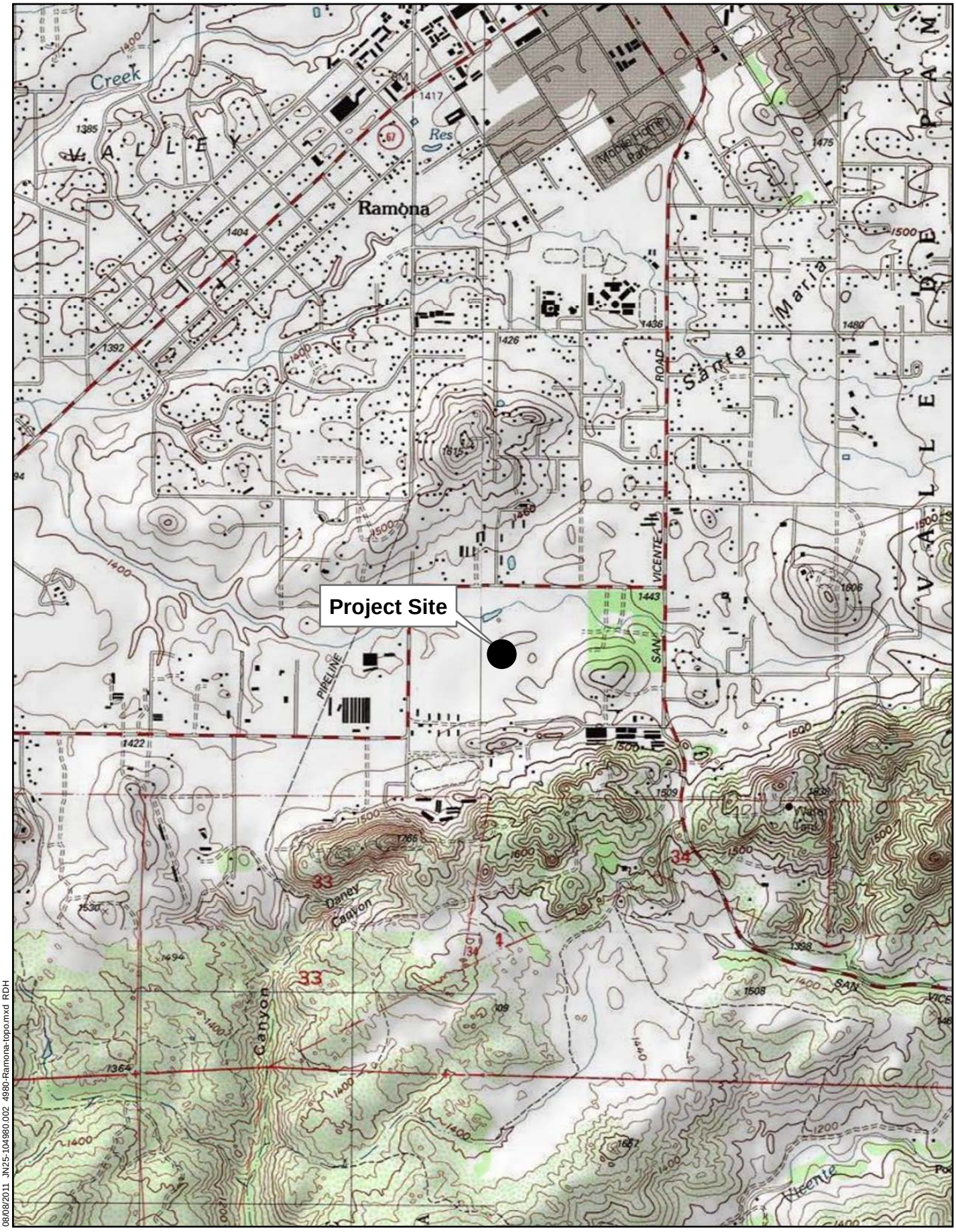
0 2.5 5 10 Miles

Source: ESRI

SOL ORCHARD-RAMONA

Regional Location Map

Exhibit 1



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RBF CONSULTING GIS

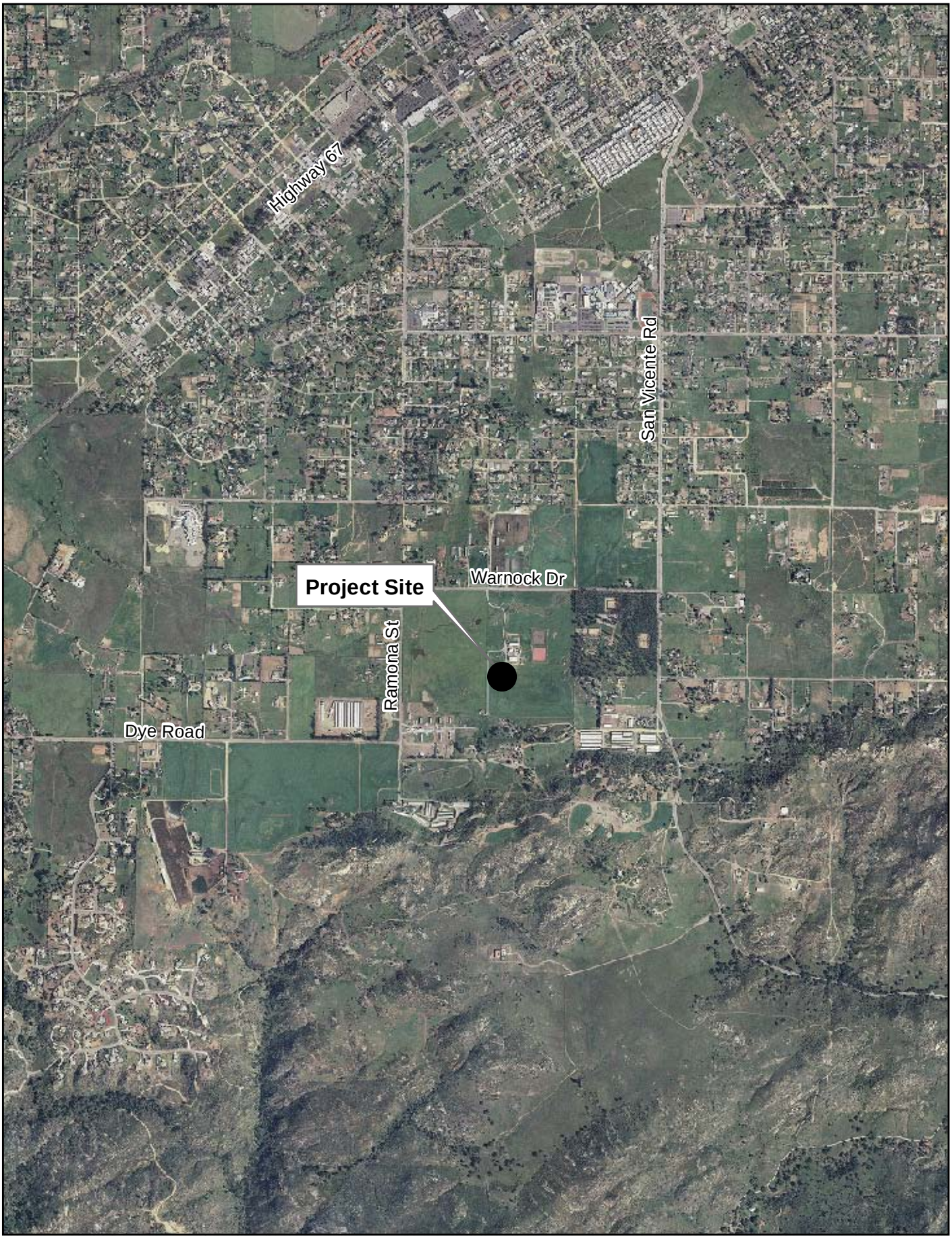
0 1,000 2,000 4,000 Feet

Source: ESRI USGS Topo Ramona

SOL ORCHARD-RAMONA

Local Vicinity Map Topographic Base

Exhibit 2



08/10/2011 JN25-104980.002 4980-Ramona-aerial.mxd RDH

RBF CONSULTING GIS

0 1,000 2,000 4,000 Feet

Source: Eagle Aerial 2010

SOL ORCHARD-RAMONA

Local Vicinity Map Aerial Base

Exhibit 3

The proposed PV solar facilities would be installed on a portion of an approximately 110-acre parcel to achieve the intended MW output; however, development and MUP authority would be limited to 42.7 acres of the parcel, allowing the unaffected acreage to remain in its present state (agricultural use/livestock raising/dry farming). As depicted on Exhibit 4, the project design would consist of photovoltaic solar panels that are mounted on a collection of single-axis tracking (SAT) systems supported by machine-driven H-pile posts. In isolated cases where geotechnical constraints are encountered, a ballast foundation system would be provided. The solar panels would be either mono-crystalline or poly-crystalline silicon cell modules.

The solar panels would be aligned in rows that rotate to face east in the morning and west in the afternoon hours, tracking the sun about a north/south axis to maximize solar absorption. The panels would be rack-mounted three-wide, measuring approximately 9.5 across each row when flat (horizontal). When fully inclined to 45-degrees, the upper edge of the tallest panels would be 8-11.5 feet from the ground surface depending on terrain. When flat all panels would be 4.5-8 feet above ground depending on terrain. As the maximum height of the proposed PV solar panels would range from approximately 8-11.5 feet as measured from ground surface, the solar panels would not represent elements of large scale or height within the existing landscape. The length of each row of panels would be approximately 150 feet along the north/south axis. The ultimate arrangement/number of PV solar panels, racking, inverter pads and structures, and internal access are shown on the MUP Plot Plan to illustrate the general configuration of the proposed solar collection system; however, this layout is subject to modification at final engineering design. Refer to Figure 3A, Major Use Permit Plot Plan (Sheet 1 of 3), and Figure 3B, Major Use Permit Plot Plan (Sheet 2 of 3).

Energy generated by the project would be delivered to an existing 12 kV distribution line that runs parallel to the northern side of Warnock Drive. Connection would be made from the project site via overhead connection.

In addition, a maximum ten-foot wide cleared path will be provided along the EOP of Warnock Drive and Ramona Street.

Landscaping is proposed for screening purposes along the western and northern portions of the MUP area perimeter to reduce views of the proposed project from offsite vantage points; refer to Figure 3C, Major Use Permit (Sheet 3 of 3) – Conceptual Landscape Plan, for the proposed treatment along particular perimeter segments. The use of a variety of vegetation is proposed, including but not limited to, shrubs such as toyon, scrub oak, and sugar bush, or evergreen vine such as creeping fig, English ivy, cape honey suckle, and star jasmine. Additionally, a 6-foot high chain-link security fence (plus one foot of two-strand barb wire) would be installed along the MUP area perimeter; an existing barbed wire fence is present along the perimeter of the subject 110-acre property.

2.3 Purpose and Need

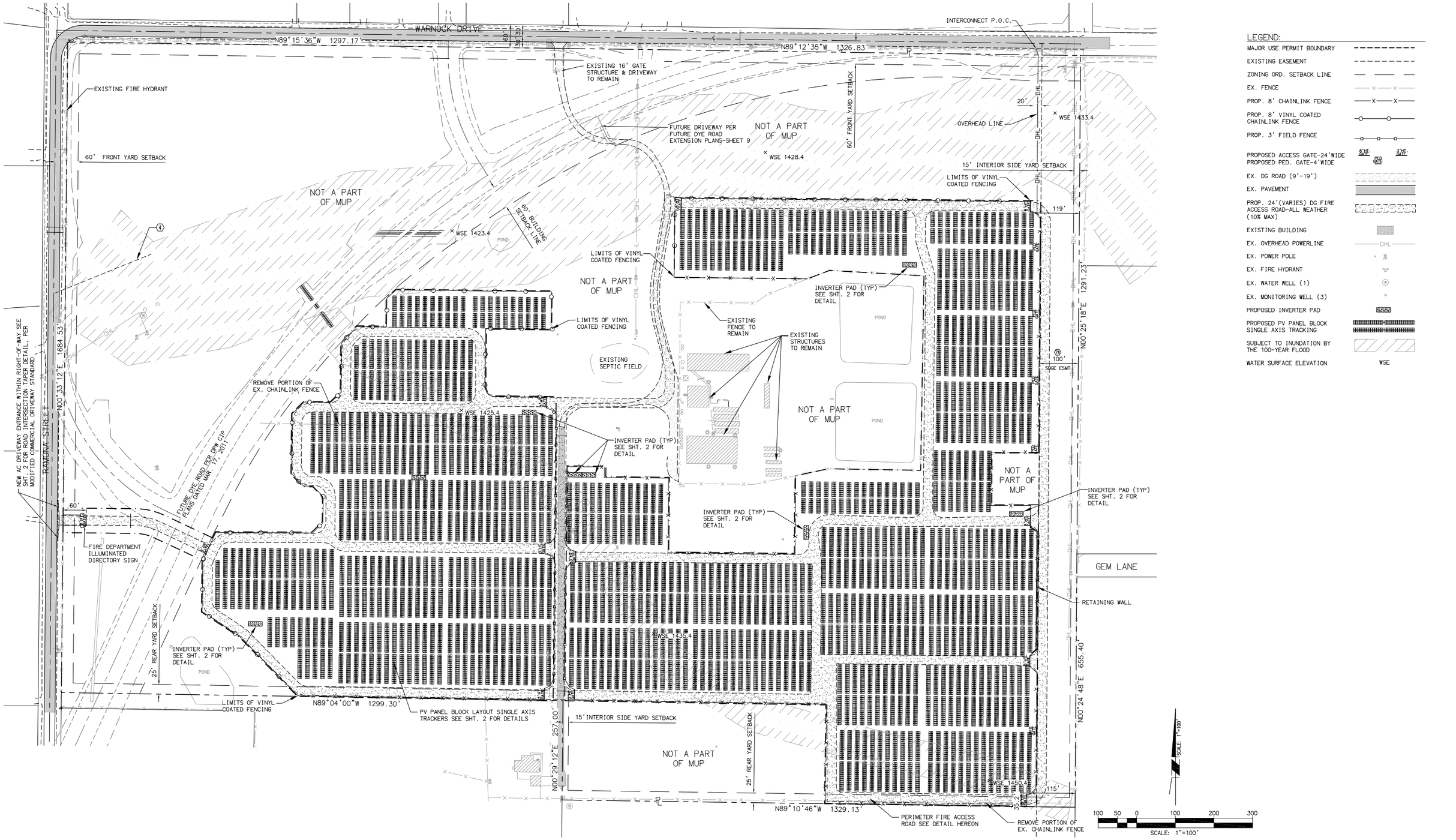
The project is intended to allow for the installation and operation of a photovoltaic electrical generation facility and represents an opportunity to provide residents of Ramona and the greater surrounding area

with clean source of electrical power from renewable sources. Power from the project would replace a portion of the energy currently supplied to the power grid by non-renewable sources located far away from Ramona, which require transmission lines to delivery power to the Ramona area. The proposed Project would instead deliver renewable energy to all San Diego Gas and Electric (SDG&E) customers in the local area in the cleanest, most efficient manner possible today, by generating renewable power locally and feeding into the existing local distribution system.

In the broad spectrum of renewable energy projects, this project fits into the category known as Wholesale Distributed Generation (WDG). WDG is currently the most cost-effective renewable energy market segment because it optimizes the utilization of appropriate and available sites to serve local load, while avoiding costs and delays associated with transmission upgrades that are required for larger, central station projects located far from the load being served. Transmission of power over great distances also leads to significant losses to resistance and transformation, and such losses broadly degrade the efficiency and usefulness of such large, central station generators.

The Sol Orchard Ramona Project has the following specific objectives:

- Deploy a photovoltaic solar technology that has been proven and is readily available, efficient, and environmentally friendly.
- Generate electricity at a cost that is competitive on the renewable market.
- Generate electricity in immediate proximity to where it is being consumed, thereby reducing demand on existing transmission lines and the need for more transmission lines.
- Provide a new source of renewable energy that assists the power purchaser and the State of California in achieving the Renewable Portfolio Standard (RPS).
- Deliver electricity to the grid as soon as possible. The applicant has executed a long-term Power Purchase Agreement (PPA) with SDG&E to purchase all electricity generated by the project.
- Locate the project on land with non-sensitive habitat in a rural setting where there is direct access to the existing electric distribution system.
- Minimize potential impacts to the environment by:
    - Locating the project on disturbed and degraded land to minimize potential impacts to threatened and endangered species and habitat.
    - Maximizing the use of existing infrastructure (distribution lines, roads, water source).
    - Reducing the emission of greenhouse gases from the generation of electricity.



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SOL ORCHARD - RAMONA

Proposed Site Plan

Exhibit 4

Chapter 3 METHODOLOGY

3.1 Pre-Survey Investigation

Prior to conducting field surveys, a thorough review of relevant maps, databases, and literature pertaining to biological resources known to occur within the project site was performed. Recent and historical aerial imagery (Google 2011), topographic maps (USGS 1996), soils maps (USDA 2011), vegetation maps (County of San Diego 2009; SanGIS 2011), and other maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting. In addition, a query of sensitive species and habitats databases was conducted, including the California Natural Diversity Database (CNDDB; CDFG 2011a), the California Native Plant Society Electronic Inventory (CNPSEI; CNPS 2011), San Diego Natural History Museum (SDNHM) Plant Atlas (SDNHM 2011), and the Consortium of California Herbarium (Berkeley Mapper 2011; Consortium 2011) applications, as well as a review of regional lists produced by the U.S. Fish and Wildlife Service (USFWS 2011a), California Department of Fish and Game (CDFG 2011a, 2011b, 2011c, and 2011d), and the County (County of San Diego 2010).

The pre-survey investigation also included a verification of whether or not the project site falls within areas designated as final or proposed USFWS Critical Habitat for federally threatened or endangered species (USFWS 2011a), as well as areas proposed as PAMA under the Draft North County Plan (County of San Diego 2009; SanGIS 2011). The complete list of sensitive species and habitats that have been previously recorded in the vicinity of the project site was compiled, and all recorded locations of species and other resources were mapped and overlayed onto aerial imagery using Geographic Information Systems (GIS). The list of sensitive species and habitats included database results for areas within approximately 5 miles of the project site, including selected results from the San Pasqual, Ramona, San Vicente Reservoir, and El Cajon Mountain, California USGS 7.5 minute topographic quadrangles (Appendix B). In addition, the pre-survey investigation included a review of draft MSCP documents (County of San Diego 2009) and the County's Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources (County of San Diego 2010).

3.2 General Biological Survey

Two general biological surveys of the project site and approximately 100 feet beyond the site, hereinafter referred to as the survey area, were conducted by qualified Atkins biologist Karl Osmundson and RBF biologist Mike Gonzales on December 1, 2010 and May 26, 2011. The total acreage surveyed was 74.96 acres. The survey was conducted on-foot and included 100 percent visual coverage of the survey area. Private property and other areas where access was restricted were not walked during the survey. Where possible, restricted areas were visually inspected by binocular scans. The survey included

a general inventory of existing conditions and focused primarily on mapping existing vegetation communities or habitat types, assessing suitability for sensitive plant and wildlife species, and identifying potential wetlands and other sensitive resources. Physical parameters assessed included vegetation and soil conditions, presence of indicator plant and wildlife species, slope, aspect and hydrology. All plant and wildlife species observed were recorded in a standardized field notebook (Appendix A). In addition, representative photographs were obtained of the survey area (Appendix C).

Vegetation communities were mapped in the field using aerial imagery and 7.5-minute USGS topographic base maps. The vegetation communities were classified according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986), and modifications provided guidance in Oberbauer (1996) and Oberbauer et al. (2008). The names of plant species discussed in this report generally follow the nomenclature suggested by the CNPS, and in Jepson (2011) and Munz (1974). The names of wildlife generally follow the nomenclature suggested by CDFG (2008).

Data was collected in the field using a Garmin GPSMAP 60CSx hand-held Global Positioning System (GPS) unit and recorded on recent aerial imagery at a 1 inch = 200 feet scale. Where sensitive resources were encountered, spatial data was recorded and later entered into GIS ArcView software to plot locations. Other materials used in the field included field binoculars, digital camera, and a Kestrel hand-held air temperature and wind speed recording device.

Chapter 4 RESULTS

4.1 Weather Conditions

A general biological survey of the 74.96-acre survey area was conducted by qualified Atkins biologist Karl Osmundson and RBF biologist Mike Gonzales on December 1, 2010 and May 26, 2011. The December 1, 2010 survey was conducted between the hours of 1200 and 1400. Weather conditions encountered during the December 1, 2010 survey included clear skies, with temperatures ranging from 77 to 79 degrees Fahrenheit, and winds ranging from 1 to 2 miles per hour out of the west. The May 26, 2011 survey was conducted between the hours of 1600 and 1830. Weather conditions encountered during the May 26, 2011 survey included clear skies, with temperatures ranging from 70 to 72 degrees Fahrenheit, and winds ranging from 1 to 5 miles per hour, with gusts up to 10 miles per hour out of the west. No unusual weather had occurred in the region during the weeks prior to the surveys (The Weather Channel 2011).

4.2 Regional Context

The survey area is situated in central San Diego County amongst the mid-elevation valley lands that encompass the Ramona area. The encompassing region is generally defined by Ramona's Santa Maria Valley, historically known as the Rancho Valle de Pamo or Rancho Santa Maria Grant area. This expansive valley supports Ramona's downtown Main Street developments, a municipal airport, and rural residential lands, in addition to undeveloped lands, including what are commonly referred to as the "Ramona grasslands". Much of the area is comprised of residential, rural residential, and mixed agricultural general land uses.

The San Pasqual Valley, Santa Ysabel Creek, and Clevenger Canyon generally border the region to the north. Dos Picos, Iron Mountain, and the San Vicente Valley border the region to the south. The rolling foothills leading up to Mount Gower, Whale Mountain, Lake Sutherland, Witch Creek, and Santa Ysabel occur to the east. The bouldery peaks of Mount Woodson and Starvation Mountain, and the sharply descending slopes leading down to Highland Valley, Green Valley, and Poway occur to the west. Several Native American Tribal Lands occur in the region, none of which occur in the immediate vicinity of the survey area. No Preserve Lands, National Forest Lands, Bureau of Land Management Lands occur in the immediate vicinity of the survey area. Cleveland National Forest Lands occur further to the north across Clevenger Canyon, and further to the east near Mount Gower.

Important biological resources in the region generally include resources associated with open grassland (e.g., the Ramona grasslands), coastal sage scrub (inland form), chaparral, and oak riparian habitats. The Ramona area generally drains from east to northeast into the San Dieguito River. Several significant

intermittent and perennial drainage features occur within the encompassing San Dieguito River watershed, including Santa Maria Creek, Santa Ysabel Creek, Temescal Creek, and Guejito Creek, among others. The intermittent Santa Maria Creek generally runs through the downtown area of Ramona and across the Santa Maria Valley and Ramona grasslands, for which, a number of unnamed drainage features also provide tributary ephemeral flows. These water features and associated valleys and riparian corridors provide important habitat for plant and animal species amongst the fragmented rural residential and agricultural lands.

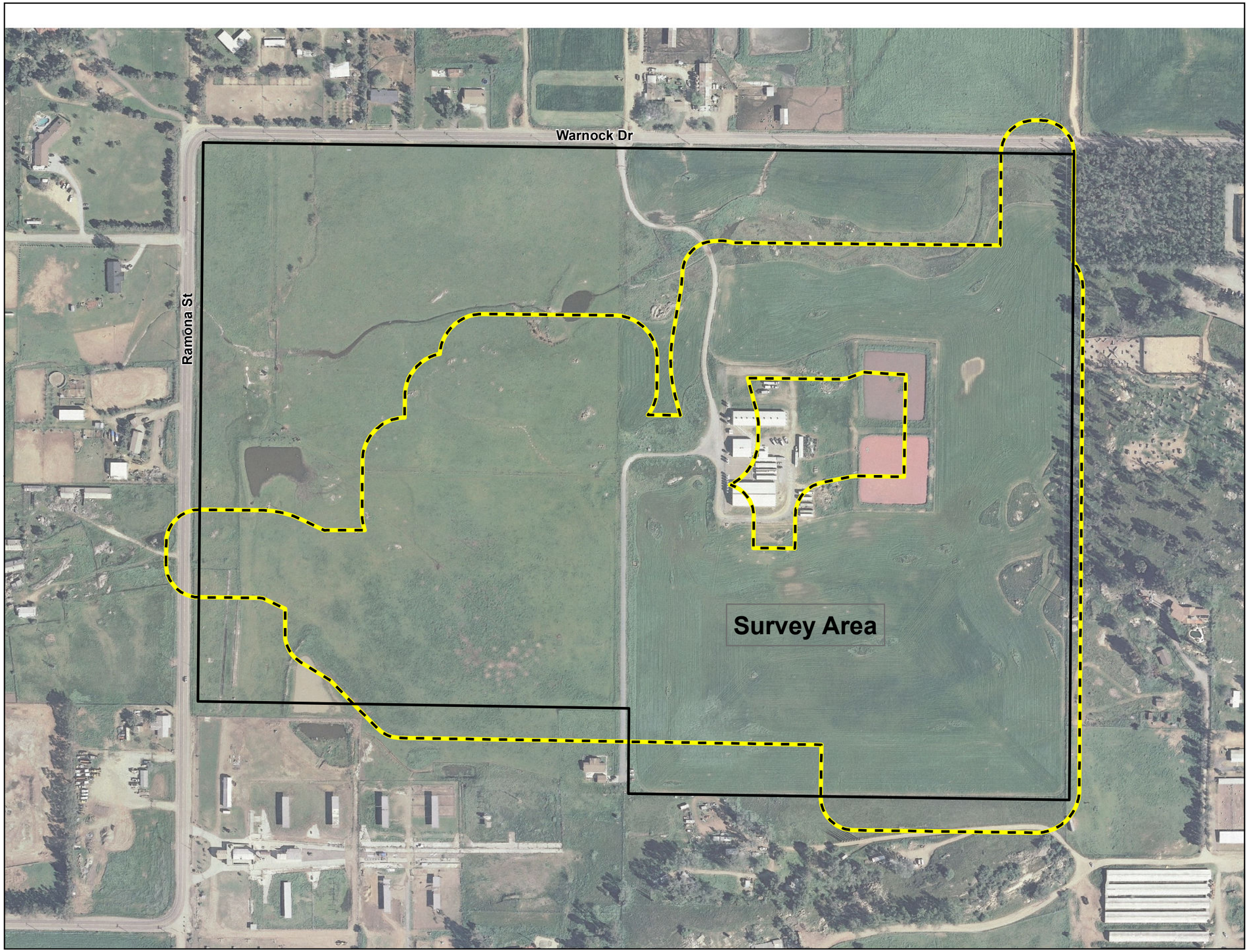
The survey area does not occur within the boundaries of any adopted Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) areas, including any adopted MSCP areas. However, the survey area does occur within the boundaries of the proposed Draft North County Plan, but does not occur within areas proposed as PAMA. Areas identified as PAMA and other preserve lands occur further to the south and east near Spangler Peak and the San Vicente Valley. No PAMA or preserve lands occur within 1,000 feet of the survey area.

4.3 General Land Uses

General land use within the survey area includes a combination of agricultural land uses (Exhibit 5). The survey area supports active farming, grazing, livestock-raising activities, which are presumed to have been the predominant land uses for many decades. Limited portions of the survey area support a private driveways, agricultural structures, and Warnock Road. General land use surrounding the survey area includes a mix of agricultural and rural residential land in all directions.

4.4 Disturbance

The survey area contains evidence of a variety of disturbances that are primarily anthropogenic related. The most significant disturbances include those associated with active agricultural activities over the near entirety of the survey area. Tilling and maintenance of the land, grazing by domestic animals, and other disturbances related to active agriculture are evident throughout the survey area. Lighting, noise, runoff, and encroachment resulting from existing land uses impose a direct and indirect disturbance to wildlife using the survey area and immediate vicinity. Further, areas within the survey area that were not actively being used for cultivation of crops or grazing supported a high number of non-native plant species.



10/31/2011 JN25-1014980 4980-RA-aerial-BIO.mxd KDB

RBF CONSULTING GIS

0 50 100 200 300
Feet

Source: Eagle Aerial 2010, RBF Consulting

SOL ORCHARD-RAMONA

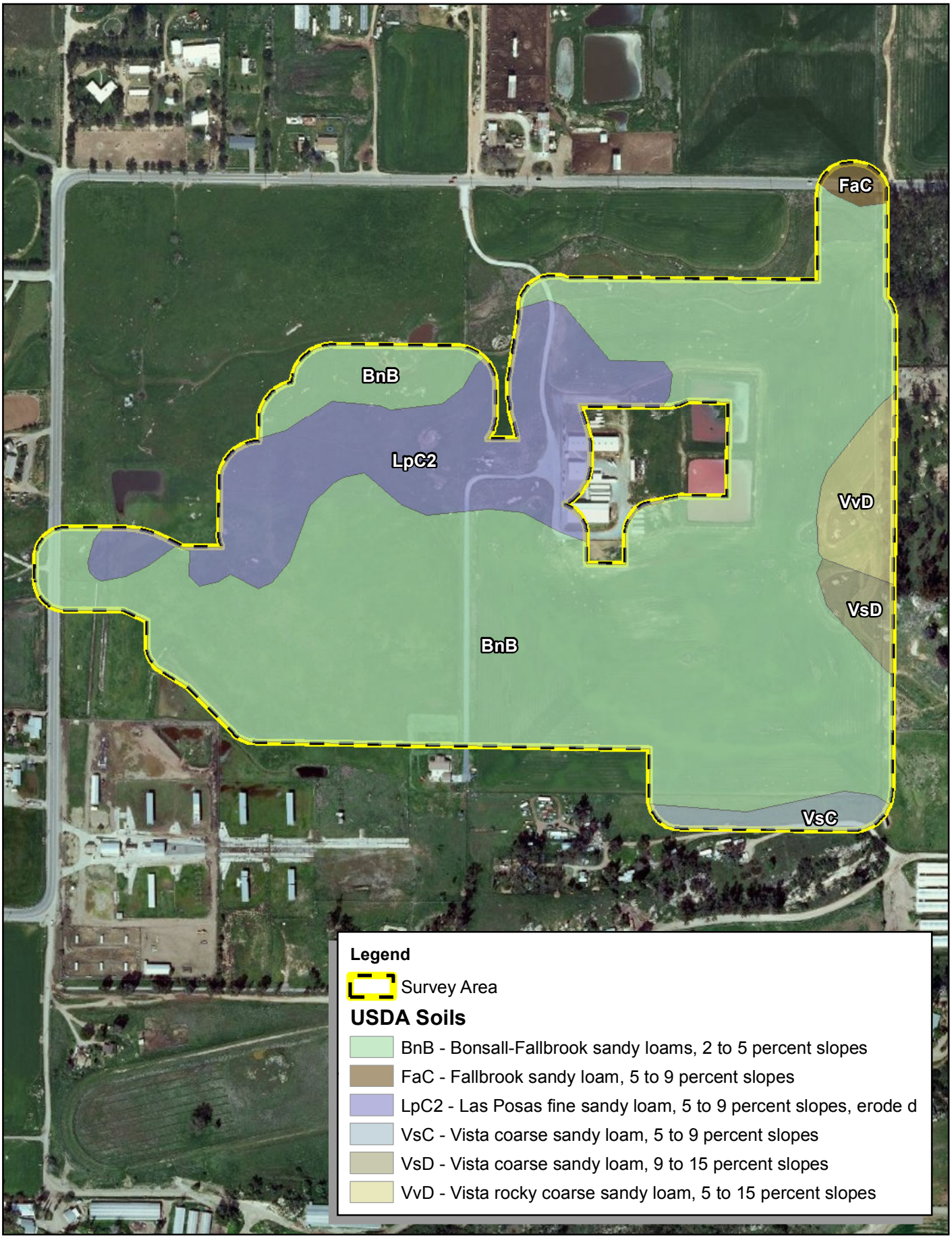
Survey Area Map Aerial Base

Exhibit 5

4.5 Topography and Soils

The survey area is relatively flat and characterized by a very shallow, southeast-northwest trending slope. Elevations range from approximately 1,465 to 1,425 feet (447 to 434 meters) above mean sea level. No major depressions, slopes, hilltops or ridgelines characterize the survey area. Historical agricultural practices have resulted in substantial modifications to the natural topography and physical attributes of the survey area. A number of isolated rock and boulder outcrops occur scattered throughout the survey area. In general, these isolated outcrops represent the only areas within the survey area that have not been subject to the direct effects of agricultural practices. In addition, a single, naturalized, earthen-lined drainage swale traverses the northern portions of the survey area. The drainage swale is unnamed, but is depicted as a blue-line feature on the San Pasqual and Ramona, California USGS 7.5-minute topographic quadrangle maps. The feature originates further to the east near Spangler Peak, and is a tributary to Santa Maria Creek, whose confluence occurs further to the northwest of the survey area near Vorhes Lane, just south of the Ramona airport. The drainage swale is highly disturbed as a result of agricultural practices and provides relatively low biological function and value. In addition, several man-made stock ponds and detention basins associated with agricultural practices occur within portions of the survey area. These man-made ponds are also highly disturbed and provide relatively low biological function and value. No other surface drainage features or waterbodies occur, including any other man-made or natural drainage ditches, round-bottom swales, streams, vernal pools or ponds.

As depicted within Exhibit 6, the survey area is mapped as supporting six soil mapping units belonging to four separate soil series: Bonsall-Fallbrook sandy loams (2 to 5 percent slopes); Fallbrook sandy loam (5 to 9 percent slopes); Las Posas fine sandy loam (5 to 9 percent slopes, eroded); Vista coarse sandy loam (5 to 9 percent slopes); Vista coarse sandy loam (9 to 5 percent slopes); and, Vista rocky coarse sandy loam (5 to 15 percent slopes) (USDA 2011). The dominant soil type within the survey area is Bonsall-Fallbrook sandy loam, which occurs throughout the survey area. Las Posas fine sandy loam occurs as a smaller inclusion in the central and western portions of the survey area surrounded by Bonsall-Fallbrook sandy loam. Fallbrook sandy loam, Vista coarse sandy loam, and Vista rocky coarse sandy occur as very small inclusions associated with minor slopes along the northern, southern, and eastern boundary of the survey area. The observed surface soils throughout the survey area have been significantly disturbed as a result of historical agricultural use of the land. The soils were highly compacted and surface horizons showed evidence of routine disturbance by cultivation and grazing activates. The majority of the survey area contained evidence of surface maintenance, cultivation and/or grazing activities, all of which have resulted in significant disturbance to the surface soils. In combination with other factors, the agricultural-related disturbances to the soils within the survey area have resulted in very poor habitat conditions for biological resources, particularly native vegetation and rare plants.



8/8/2011 JN25-104980.002 4980-RA-soils.mxd RDH

RBF CONSULTING GIS

0 250 500 1,000 Feet

Source: USDA, Eagle Aerial 2010

SOL ORCHARD-RAMONA

USDA Soils Map

Exhibit 6

4.6 Habitats / Vegetation Communities

As depicted within Exhibit 7, a total of seven vegetation communities or habitat types were mapped within the survey area during the general biological survey: disturbed wetland, urban/developed, intensive agriculture, field/pasture, row crops, non-native grassland: broadleaf dominated, and eucalyptus woodland. The names and classification of vegetation communities are derived from Holland (1986), Oberbauer (1996), and Oberbauer et al. (2008), and are consistent with those included within the Vegetation Communities in San Diego County and Table 2 of the County's Guidelines (County of San Diego 2010). A complete list of plant species observed within the survey area is provided within Appendix A. Table 1 below provides a summary of the existing vegetation communities mapped within the survey area.

Table 1 Habitats / Vegetation Communities within the Survey Area

Habitat / Vegetation Community (Holland Code)	Existing (Acres)
Disturbed Wetland (11200)	0.77
Urban/Developed (12000)	1.41
Intensive Agriculture (18200)	3.74
Field/Pasture (18310)	25.53
Row Crops (18320)	34.68
Non-Native Grassland: Broadleaf Dominated (42210)	7.53
Eucalyptus Woodland (79100)	1.29
TOTAL	**74.96**

Disturbed Wetland (0.77 Acre)

Disturbed wetlands include areas permanently or periodically inundated by water, which have been significantly modified by human activity. Site factors associated with disturbed wetlands include obvious artificial structures such as concrete lining, barricades, rip-rap, piers, or gates. This habitat types is often unvegetated, but may contain scattered native or non-native vegetation. Examples of disturbed wetlands may include lined channels, Arizona crossings, detention basins, culverts, and ditches. Characteristic species of disturbed wetlands include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), gum tree, fan palm (*Washingtonia* spp.), pampass grass (*Cortaderia* spp.), Bermuda grass (*Cynodon dactylon*), but may also contain willows (*Salix* spp.), cattails (*Typha* spp.), and a variety of other wetland plants. This community occurs throughout San Diego County.

Approximately 0.98 acre of disturbed wetland is mapped within the northern and southwestern portions of the survey area. This habitat was found in association with an existing man-made stock pond and an unnamed, east-west tending, ephemeral drainage swale that runs parallel and south of Warnock Drive. The swale occurs outside of the areas proposed for developments, and all proposed developments have been set back a minimum of 50 feet from the perimeter of the habitat. The swale is earthen-lined and supports a dominance of non-native plant species typical of low quality wetlands and surface drainage features in the region. Sign of agricultural equipment use (disking) and grazing was evident throughout the swale during the general biological surveys. Limited native plant species occur. Dominant plant

species observed include toad rush (*Juncus bufonius*), curly dock (*Rumex crispus*), and Italian ryegrass (*Lolium multiflorum*). The stock pond and swale appeared to support seasonal wetland conditions during the time of the December 2010 survey; however, was completely dry during the May 2011 survey. Overall, the disturbed wetland within the survey area provides low quality habitat and limited biological function and value.

Urban/Developed (1.41 Acres)

Urban/developed land generally includes areas that have been permanently altered due to the construction of aboveground developments such as buildings, roads, and golf courses. Developed land is characterized by a high percentage of non-vegetated bare earth or asphalt, concrete, and other permanent surfaces. For the purposes of this assessment, urban/developed land may include isolated stands of non-native ornamental vegetation associated with residences and planted for landscaping improvements, such as pine (*Pinus* spp.), gum (*Eucalyptus* spp.), pepper (*Schinus* spp.), palm (*Arecaceae* family), wattle (*Acacia pycnantha*, *Acacia* spp.), oleander (*Nerium oleander*), pittosporum (*Pittosporum* spp.), and various turf grasses (*Fescuta* spp., *Cynodon* spp., *Digitaria* spp., *Eremochloa* spp., *Zoysia* spp.).

Approximately 1.41 acres of urban/developed land is mapped as existing private driveways and roads within the survey area. No vegetation was observed within these developed areas. Areas characterized by urban/developed land generally lack important biological resources and provide limited biological function and value.

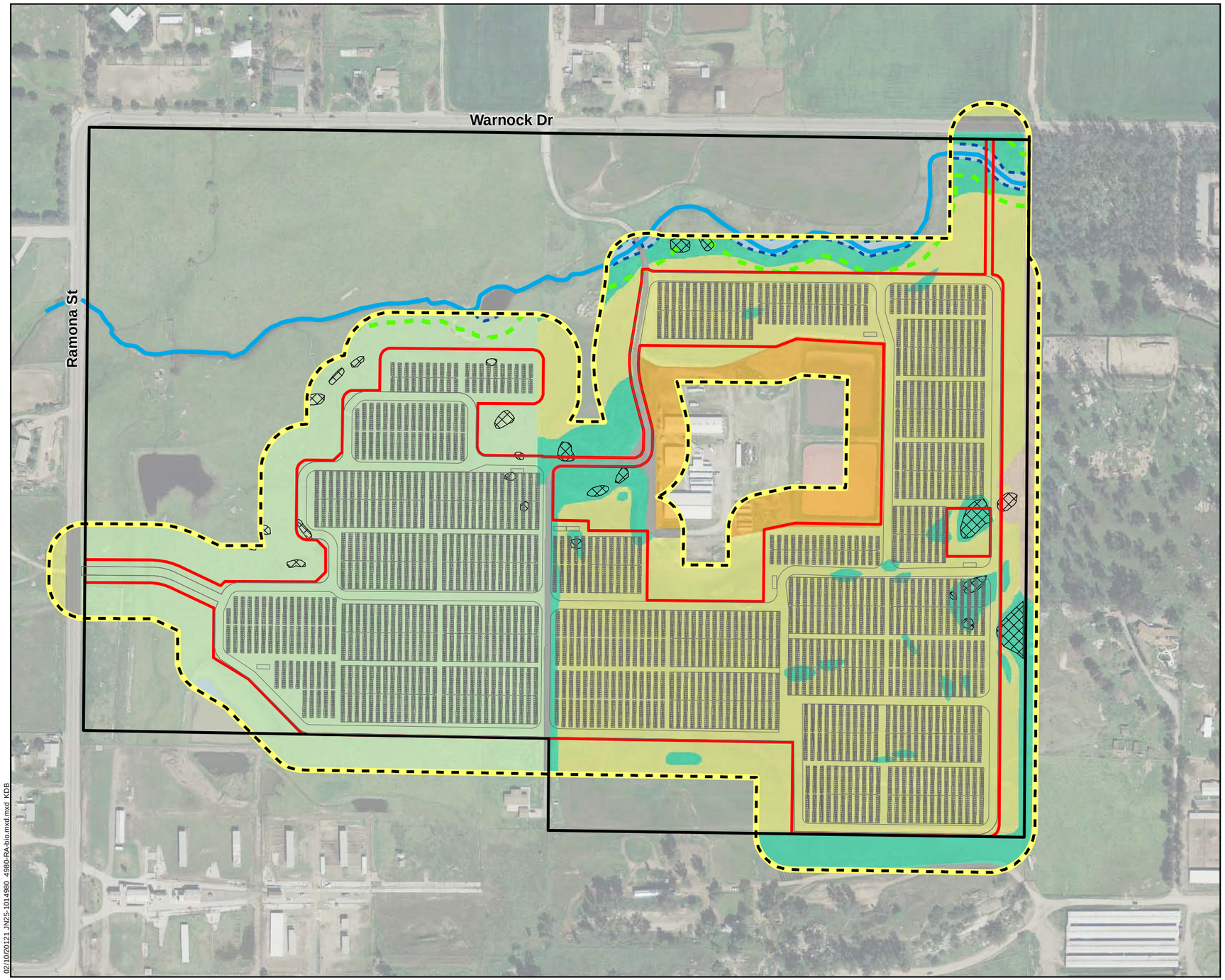
Intensive Agriculture (3.74 Acres)

Intensive agricultural land primarily includes dairies, nurseries, and chicken ranches. Extensive agriculture may also include open spaces used for livestock. There is usually no vegetation present, except between animal holding areas.

Approximately 3.74 acres of intensive agriculture occurs within the central portions of the survey area. These areas are used by the landowners for holding livestock, presumably domestic chicken (*Gallus gallus domesticus*), domestic cow (*Bos taurus*), and pig (*Sus scrofa domesticus*). In addition, two agricultural detention basins occur within the areas mapped as intensive agriculture. These basins are highly disturbed and appeared to be used to detain spoil materials and liquids derived from the agricultural facilities. The basins are unsuitable and potentially harmful for most animal species. Limited vegetation observed included non-native annual grasses and other sparsely scattered ruderal plant species.

Field/Pasture (25.53 Acres)

Field/pasture is a type of extensive agriculture typically comprised of planted fields of monoculture, irrigated crops that are usually artificially seeded and maintained. Field/pasture lands may be used for active grazing purposes. The herbaceous habitat is dense with nearly 100 percent cover. Characteristic species may include oats (*Avena* spp.), Bermuda grass (*Cynodon* sp.), barleys (*Hordeum* spp.), Johnsongrass (*Sorghum* spp.), as well as alfalfa (*Medicago* spp.).



Legend

- Property Boundary
- Survey Area
- Impact Area
- Rock Outcrop
- Drainage Feature
- Potential RPO Wetland
- Potential RPO 50' Buffer

Plant Communities (Holland Code)

Legend

- Disturbed Habitat (11300)
- Disturbed Wetland (11200)
- Eucalyputas Woodland (79100)
- Field/Pasture (18310)
- Intensive Agriculture (18200)
- Non-Native Grassland: Broadleaf-Dominated (92210)
- Non-Native Vegetation/Ornamental (11000)
- Row Crops (18320)
- Urban/Developed (12000)

02/10/20121 JN25-1014986 4986-RA-bio.mxd KDB

RBF CONSULTING GIS

0 50 100 200 300 Feet

Source: Eagle Aerial 2010, RBF Consulting

SOL ORCHARD-RAMONA

Biological Resources Map

Exhibit 7

Approximately 25.53 acres of actively grazed field/pasture land occurs within the western portions of the survey area. Based on observations during the survey and historic aerial imagery (Google Earth 2011), the field/pasture areas appeared to have historically supported row crops (dry farming). Sign of active grazing by domestic cow was observed throughout the field/pasture within the survey area. Vegetation observed included cultivated barley (*Hordeum* sp.) and oat (*Avena* sp.), and non-native grasses and forbs such as ripgut (*Bromus hordeaceus*), hare barley (*Hordeum leporinum*), rabbitfoot grass (*Polypogon monspeliensis*), and short-pod mustard (*Hirschfeldia incana*), among others. In addition, several scattered native species were observed including checkerbloom (*Sidalcea calycosa*), fiddleneck (*Amsinckia menziesii*), and telegraph weed (*Heterotheca grandiflora*). In general, the field/pasture within the survey area provide low quality habitat and limited biological function and value due to historic agricultural uses, the prevalence of non-native grasses, and active grazing.

Row Crops (34.68 Acres)

Row crops are a type of extensive agriculture comprised of annual and perennial crops grown in rows with open space between the rows. Species composition frequently changes by season and year. Row crops often occur in floodplains or upland areas with high soil quality. Row crops are nearly always artificially irrigated.

Approximately 34.68 acres of row crops occurs throughout the eastern portions of the survey area. The species of crops being cultivated within the row crops appeared to be cultivated barley (*Hordeum* sp.) and oat (*Avena* sp.). The row crops were being dry-farmed and did not support by any active irrigation during the surveys. Based on observations during the survey and historic aerial imagery (Google Earth 2011), the row crops are subject to a variable cultivation and disking cycle and have been for at least a decade. In general, the row crops within the survey area provide low quality habitat and limited biological function and value.

Non-Native Grassland: Broadleaf-Dominated (7.53 Acres)

Non-native grassland: broadleaf-dominated is a subset of non-native grasslands, which is dominated by one or several non-native, invasive broadleaf species. This designation should only be applied where non-native broadleaf species account for more than 50 percent of the total vegetative cover. Site factors of non-native grasslands include disturbance and/or a proximity to nearby seed source resulting in the establishment of extensive and persistently dominant broadleaf species. Characteristic species include non-native grasses such as oats (*Avena* sp.) and bromes (*Bromus* sp.), in addition to non-native broadleaf forbs such as black mustard, short-pod mustard, fennel (*Foeniculariurn vulgare*), star-thistle (*Centaurea* spp.), and other non-native, invasive broadleaf species. This community has become increasingly common in San Diego County coastal areas such as Camp Pendleton, Carlsbad Highlands, Oceanside, and Otay Mesa, but occurs throughout the County.

Approximately 7.53 acres of non-native grasslands occur as small fragmented patches throughout the eastern portions of the survey area. The patches are generally associated with the margins of row crops and contained evidence of routine mowing disturbance. The patches contained an overall dominance of ripgut. Other non-native forbs observed in lower percent coverage included oats, hare barley, rabbitfoot

grass, goldentop grass (*Lamarckia aurea*), short-pod mustard, western ragweed (*Ambrosia psilostachya*), lamb's quarters (*Chenopodium album*), filaree (*Erodium cicutarium*), white sweet clover (*Melilotus albus*), and Russian thistle (*Salsola tragus*), among others. Due to disturbance factors and its small size, fragmentation, and non-native vegetation constituents, the non-native grassland within the survey area provides low quality habitat and limited biological function and value.

Eucalyptus Woodland (1.29 Acres)

Eucalyptus woodland habitats range from single-species thickets with little or no shrubby understory, to scattered trees over a well-developed herbaceous and shrubby understory. In most cases, eucalyptus forms a dense stand with a closed canopy. Eucalyptus species produces a large amount of leaf and bark litter, of which, the chemical and physical characteristics limit the ability of other species to grow in the understory, decreasing floristic diversity. Overstory composition is typically limited to one species of the genus, or mixed stands composed of several species. Few native overstory species are present within eucalyptus planted areas, except in small cleared pockets. Characteristic species include gum tree (*Eucalyptus* spp.), including the most common blue gum (*Eucalyptus globules*) and red gum (*Eucalyptus camaldulensis*) species. In San Diego County, this introduced habitat ranges from coastal and foothill locales that have access to water sources.

Approximately 1.29 acres of eucalyptus woodland occurs along the eastern boundary of the survey area. The woodland stand is relatively dense and comprised of similar-age blue gum trees that have evidently occurred in the area for decades (Google Earth 2011). Understory growth is limited to non-native grasses, namely ripgut. The woodland is actively used for recreational purposes (paintball). Temporary structures and other debris were observed scattered throughout the woodland. Due to disturbance factors, the eucalyptus woodland within the survey area provides relatively low quality habitat and limited biological function and value.

4.7 Flora

As included in Appendix A, a total of 31 plant species were observed during the general biological surveys. The dominant plant species within each habitat observed are included above within Section 4.6. Several non-native exotic and/or invasive plant species were observed within the survey area. No sensitive plant species were observed during the surveys. A complete list of plant species observed within the survey area, including which habitat types they were observed within, is provided within Appendix A.

4.8 Fauna

The survey area is disturbed and in general, does not provide high quality habitat for wildlife species. Overall wildlife activity during the general surveys was low to moderate. A single reptile, 21 bird, and 4 mammal species were observed or otherwise detected by call or sign within the survey area during the general biological surveys. Common species observed or otherwise detected (e.g., call, feathers, scat, tracks) within or flying over the survey area during the surveys included common reptiles such as side-

blotched lizard (*Uta stansburiana*); common songbirds such as northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melospiza melodia*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), and mourning dove (*Zenaida macroura*); raptors such as red-tailed hawk (*Buteo jamaicensis*); and common mammals such as California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and domestic dog (*Canis familiaris*). A complete list of wildlife species observed or otherwise detected within the survey area, including which habitat types they were observed within, is provided within Appendix A.

4.9 Special-Status Species

Special-Status Plant Species

For the purposes of this assessment, special-status plant species include plants that are: federally listed as threatened or endangered by the USFWS (USFWS 2011a); State listed as threatened or endangered or considered sensitive by the CDFG (CDFG 2011b, 2011c); CNPS List 1A, 1B, or 2 species, as recognized in the CNPS's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2011) and consistent with CEQA guidelines; List A, B, C, or D species included within the County's Sensitive Plant List and Table 2 of the County's Guidelines (County of San Diego 2010).

Based on a list compiled through the CNDDB (CDFG 2011a) and other sources (County of San Diego 2010; SDNHM 2011; CNPS 2011; Consortium 2011; Berkeley Mapper 2011; Calflora 2011a), 32 special-status plant species have been reported at locations in the vicinity (within approximately five miles) of the survey area (Table B-1 in Appendix B). None of the 32 special-status plant species have been reported as occupying habitat within the survey area.

Special-Status Plant Species Observed

No special-status plant species were observed or otherwise detected within the survey area during the general biological surveys, including any of the 32 special-status plant species included within Appendix B.

Special-Status Plant Species with Potential to Occur

No special-status plant species, including any of the 32 special-status plant species included within Appendix B, were determined to have a moderate or high potential to occupy the survey area due to the lack of suitable habitat and disturbance-related factors. No special-status plant species are likely to occur within the survey area for the reasons stated below.

No special-status plant species were observed within the survey area during the general biological surveys conducted on December 1, 2010 and May 26, 2011, which included 100 percent coverage and a botanical inventory of the survey area during various periods of the growing season for the region. Given the date of the May 2011 survey (during a time of the year when most plant species, including spring-blooming annuals, are readily detectable) and methods employed (100 percent coverage and a

complete botanical inventory), special-status plant species would have likely been observed had any been present.

There are a number of disturbance factors associated with the area that would preclude the presence and persistence of special-status plant species. Perhaps most limiting is the active cultivation and grazing of the land, prevalence of non-native plant species, disturbed soils, and low quality of the existing vegetation associations. The habitat present within the survey area is highly disturbed, and where vegetation is present, it contains a high percent cover of non-native annual grasses and forbs. Significant soil disturbance, including routine tilling, disking, and cultivation, is evident throughout the habitat, which has resulted in the proliferation of non-native annuals when crops are not present. The land uses and density at which non-native plants are present within the survey area pose a significant constraint on the ability for most rare endemic plants to naturally recruit to the area and become established.

Special-Status Wildlife Species

For the purposes of this assessment, special-status wildlife species include wildlife that are: listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS (USFWS 2011a); considered sensitive animals by the CDFG (CDFG 2011d); and/or, are Group 1 or 2 species included within the County's Sensitive Animal List and Table 3 of the County's Guidelines (County of San Diego 2010).

Based on a list compiled through the CNDDB (CDFG 2011a) and other sources (County of San Diego 2010), 54 special-status wildlife species have been reported at locations in the vicinity (within approximately five miles) of the survey area (Table B-2 in Appendix B). None of the 54 special-status wildlife species have been reported within the survey area.

Special-Status Wildlife Species Observed

A single special-status wildlife species was observed flying over the survey area during the December 1, 2010 general biological survey, as discussed below. No additional special-status wildlife species were observed or otherwise detected within the survey area during the general biological surveys, including any of the other special-status wildlife species included within Appendix B.

Turkey Vulture (Cathartes aura)

Turkey vulture is not federally or State listed as threatened or endangered, nor is it designated as a State species of special concern; however, it is designated as a County Group 2 species. This raptor is common within a variety of open habitats including grasslands, roadsides, suburbs, farm fields, and countrysides (Cornell 2011). It is often observed nearby landfills, trash heaps, and construction sites. On sunny days, turkey vultures can be observed soaring and catching thermals overhead. In colder weather and at night, they roost on poles, towers, dead trees, and fence posts. Turkey vultures are consummate scavengers, and nest in rock crevices, caves, ledges, thickets, mammal burrows, hollow logs, fallen trees, abandoned hawk or heron nests, and abandoned buildings. A single adult turkey vulture was observed flying over the survey area during the December 2010 survey. No suitable nesting habitat occurs on or in the immediate vicinity for this species. Marginal foraging habitat occurs within the survey area and

vicinity; however, the likelihood that this species would choose preference to the survey area is very low. This species would not be expected to use the habitat within the survey area.

Special-Status Wildlife Species with Potential to Occur

Special Status Wildlife Species with Potential to Nest

Two special-status wildlife species were determined to have a potential to nest on and/or in the immediate vicinity of the survey area: Coronado Island skink (*Plestiodon skiltonianus interparietalis*) and white-tailed kite (*Elanus leucurus*).

Coronado Island skink (Plestiodon skiltonianus interparietalis)

Coronado Island skink is not federally or State listed as threatened or endangered, however is designated as a State fully-protected species and County Group 2 species. This skink species is known to be associated with grassland, chaparral, pinon-juniper woodland, juniper-sage scrub, and oak and pine forest habitats throughout the coast ranges of southern California. This species prefers early successional habitat stages or open areas with leaf litter and other ground cover for refuge. It is often found in association with rocky areas close to streams and on dry hillsides. This species has been reported from locations approximately 1,000 feet to the immediate east of the survey area within eucalyptus woodland habitat (CDFG 2011a). The eucalyptus woodland habitat that occurs along the eastern boundary of the survey area provides marginal nesting and foraging habitat for this species. This species is unlikely to use the open agricultural lands and other habitats that occur within the survey area due to lack of adequate cover. This species was not observed or otherwise detected within the survey area during the December 2010 and May 2011 surveys.

White-tailed kite (Elanus leucurus)

White-tailed kite is not federally or State listed as threatened or endangered, however is designated as a State species of special concern and County Group 1 species. This raptor species generally occurs within rolling foothills and valley margins characterized by scattered oaks, river bottomlands, or marshes adjacent to deciduous (riparian) woodland. Its microhabitat requirements include open grasslands, meadows, or marshes for foraging that are situated adjacent or in close proximity to isolated, dense trees for nesting and perching. It is often observed in flight, "kiting" over open areas in search of prey. A potential nesting territory for this species has been reported approximately 1,000 feet to the immediate east of the survey area within eucalyptus woodland habitat (CDFG 2011a). The eucalyptus woodland habitat that occurs along the eastern boundary of the survey area provides suitable nesting habitat for this species. This species may also forage over the open agricultural lands that occur on and in the immediate vicinity of the survey area. No white-tailed kite individuals or potential nests were observed within the survey area during the December 2010 and May 2011 surveys.

Special Status Wildlife Species with Potential to Forage

In addition to white-tailed kite, the following four special-status wildlife species were determined to have a potential to forage over portions of the survey area: Cooper's hawk (*Accipiter cooperii*), red-shouldered hawk (*Buteo lineatus*), northern harrier (*Circus cyaneus*), and barn owl (*Tyto alba*).

Cooper's hawk (Accipiter cooperii)

Cooper's hawk is not federally or State listed as threatened or endangered, however is designated as a State species of special concern and County Group 1 species. This raptor species generally occurs within open, interrupted, or marginal-type woodland habitats, including oak, riparian, and ornamental woodlands. This species nests primarily in riparian growths of deciduous trees, such as in canyon bottoms and on river flood-plains, in addition to live oak trees. It is often heard calling from the woodland canopy and observed in actively pursuing prey items in flight. Cooper's hawks are known to occur in the vicinity of the survey area. This species may forage over the agricultural land within the survey area. The eucalyptus trees and woodland habitat that occurs along the eastern boundary of the survey area provide suitable perch areas for Cooper's hawks. Cooper's hawks generally prefer riparian and oak habitats for nesting, and are not likely to nest within the limited eucalyptus woodland that occurs within the survey area.

Red-shouldered hawk (Buteo lineatus)

Red-shouldered hawk is not federally or State listed as threatened or endangered, nor is it designated as a State species of special concern. It is a County Group 1 species. This raptor species generally occurs within mature deciduous and mixed woodland and forest habitats near water sources. An open understory is preferred for hunting. This species nests primarily in riparian growths of deciduous trees and are known to occur in the vicinity of the survey area. Similar to Cooper's hawks, this species may forage over the agricultural land within the survey area. The eucalyptus trees and woodland habitat provide suitable perch areas for this and other raptor species. Also similar to Cooper's hawks, and perhaps more so, red-shouldered hawks generally prefer riparian habitats for nesting, and are not likely to nest within the limited eucalyptus woodland that occurs within the survey area.

Northern harrier (Circus cyaneus)

Northern harrier is not federally or State listed as threatened or endangered, however is designated as a State species of special concern and County Group 1 species. This raptor species most commonly occurs nearby coastal salt and freshwater marsh habitats, nesting and foraging in grasslands. Nests are constructed on the ground in shrubby vegetation, usually in wet areas at the marsh edge, and are built from a large mound of sticks. Northern harriers are likely not as common as other raptor species in the vicinity of the survey area, however may range over the area. No suitable nesting habitat occurs on or within 500 feet of the survey area. The row crops and field/pasture lands within the survey area are subject to cultivation and grazing activities, in addition to routine maintenance disturbances, and northern harriers would not be expected to establish a nesting territory in those areas. If ranging in the survey area vicinity, this species may forage over the open agricultural lands that occur on and in the immediate vicinity of the survey area.

Barn owl (Tyto alba)

Barn owl is not federally or State listed as threatened or endangered, nor is it designated as a State species of special concern. It is a County Group 2 species. This widespread raptor species is primarily nocturnal and is generally found in open habitats, such as grasslands, deserts, marshes, and agricultural fields. This species nests in hollow trees, cliff cavities, buildings, and nest boxes. Nest cups are made from shredded owl pellets. Barn owls likely common occur in the survey area vicinity. None of the

habitat that occurs on or within 500 feet of the survey area is highly suitable for nesting. This species would forage over the open agricultural lands that occur on and in the immediate vicinity of the survey area.

Aside from the six species discussed above, no other special-status wildlife species, including any of the other special-status wildlife species within Appendix B, were determined to have a potential to nest, forage, or otherwise use the survey area due to the lack of suitable habitat and disturbance-related factors. The existing land uses on and in the immediate vicinity of the survey area have resulted in the removal of wildlife habitat and the permanent conversion of the land, such that the resulting, existing habitat types are generally incompatible with special-status wildlife species known to occur in the region. In addition to lack of suitable habitat, perhaps most limiting in terms of suitability for special-status wildlife species is the proximity of the survey area to existing developments and disturbances, including agricultural activities and regular lighting, noise, vehicle, and pedestrian activity; regional isolation and lack of direct connectivity or reasonable proximity to larger, better quality stands of habitat; and, overall lack of habitat or low quality of habitat with respect to providing nesting, foraging, dispersal, refuge or other habitat for required for special-status wildlife known to occur in the region. The survey area is subject to existing adverse direct effects resulting from agricultural activities, of which, is evident by active cultivation and grazing of the land, equipment use and storage, pedestrian and vehicular use, structures, and debris piles. In addition, the survey area is also subject to adverse indirect effects from noise and night lighting, the effects of which could deter special-status wildlife species from using the area.

Nesting Birds

The federal Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs. Further, Section 3503 of the California Fish and Game Code (CFG Code) makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Section 3503.5 also protects all birds in the orders *Falconiformes* and *Strigiformes*, birds of prey, such as hawks and owls, and their eggs and nests from any form of take.

Some of the vegetation that occurs within portions of the survey area may provide suitable nesting opportunities for bird species protected under the MBTA and CFG Code, including the sensitive raptor, white-tailed kite. The open row crops, field/pasture lands, non-native grassland, and disturbed wetland areas provide marginal nesting habitat for common ground-nesting birds such as western meadowlark and killdeer. The eucalyptus woodland habitat provides suitable nesting habitat for raptors such as white-tailed kite, red-tailed hawk, and great-horned owl (*Bubo virginianus*), in addition to songbirds such as Bullock's oriole (*Icterus bullockii*).

Raptor Foraging

The loss of foraging habitat for raptor species could be considered a significant impact depending on the overall size and nature of the impact, and the functions and values of the affected area relative to other foraging habitat in the local and regional vicinity. In general, important raptor foraging areas are characterized by habitat types that are both compatible with foraging behavior (e.g., promote appropriate lines of sight, provide unobstructed access to prey, contain adequate perches, etc.) and support an adequate prey base for target raptors with the potential to range through the area. Typically, raptor foraging areas of local and regional importance are relatively large in size and are not fragmented or constrained by development or other incompatible land uses. For year-round resident raptors, important foraging areas may be used frequently and repeatedly, and usually occur in close proximity to nest locations and territories. Wintering raptors with the potential to occasionally range through an area may use multiple foraging sites less frequently along a migratory route or wintering location.

The survey area supports field/pasture lands and row crops that provide marginal foraging habitat for raptors known to range over the area, including sensitive raptors. Although no raptors were observed foraging over the area during the general survey, the majority of the survey area provides the minimum foraging requirements for raptors. The best quality foraging habitat occurs within the actively grazed field/pasture lands in the western portions of the survey area. A primary limiting factor for foraging raptors to occur is an apparent potential low density of preferred prey items. The soils throughout the survey area are highly compacted as a result of historic agricultural practices (dry farming), and very few small mammal burrows exist. The quality of foraging habitat provided by the row crops would depend upon the cultivation cycles, however would likely be limited in supporting potential prey items due to the highly compacted soils. Better quality foraging habitat occurs further to the south, east, and west within areas characterized by open expansive grassland habitat. High quality foraging habitat occurs even further to the west within the Santa Maria Valley and Ramona grasslands. Overall, the survey area provides marginal foraging opportunities for raptors relative to better quality habitat in the local vicinity.

4.10 Jurisdictional Waters and Wetlands

In the context of this assessment, jurisdictional waters and wetlands generally include those resources regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA), including wetland and non-wetland “waters of the U.S.”; the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act, including wetland and non-wetland “waters of the State”; the CDFG pursuant to Sections 1600 *et. seq.* of the CFG Code, including “lake, riparian, and/or streambed” habitat; and, the County pursuant to Resource Protection Ordinance (RPO) regulations, including County “RPO wetlands”.

During the general biological surveys, the survey area was evaluated for the presence or absence of potential jurisdictional waters and wetlands. The majority of the survey area is characterized by disturbed upland areas used for agricultural purposes that lack the physical attributes and natural habitat to qualify them as potential jurisdictional waters and wetlands. However, the San Pasqual and Ramona, California USGS 7.5-minute topographic quadrangle maps depict an east-west trending,

unnamed blue-line feature running through the northern portions of the survey area. The general biological surveys confirmed the presence of this unnamed feature within the survey area. The feature is characterized by a shallow, earthen-lined swale that supports an inconsistent ordinary high water mark (OHWM) and seasonal wetland conditions. Based on aerial imagery and topographic maps, the unnamed swale originates further to the east of the survey area near Spangler Peak. The swale traverses agricultural and rural residential land before discharging into the northeastern portions of the survey area (Exhibit 7). The swale then meanders in and out of the northern portions of the survey area before exiting the property at Ramona Street. The swale continues downstream and further to the west of the survey area through agricultural and rural residential land, before meeting up with another unnamed blue-line feature near State Route 67, eventually discharging into Santa Maria Creek near Vorhes Lane and south of the Ramona airport. Santa Maria Creek discharges into the San Dieguito River, which then discharges into Lake Hodges, a navigable waterway. Therefore, the unnamed swale would appear to have a significant nexus to a Traditional Navigable Water (TNW).

The drainage swale is highly disturbed as a result of historical agricultural practices and provides relatively low biological function and value in its current state. Evidence of grazing, mowing, disking, and equipment and vehicle use was apparent within portions of the swale during the general biological surveys. Although marginal seasonal and emergent wetland habitat occurs, no riparian or freshwater emergent wetland habitat was observed within the drainage swale during the general surveys. As evident during the December 2010 and May 2011 surveys, the swale is an ephemeral feature that conveys only low surface flows during and immediately after significant storm events. Non-native herbaceous vegetation is prevalent throughout the swale thalweg and adjacent seasonal wetland and upland areas. Due to lack of habitat and vegetative cover, and poor hydrological conditions, the swale does not provide suitable habitat for any special-status species. However, due to the fact the swale is a naturalized feature with an OHWM, apparent nexus to a TNW, and wetland and streambed attributes, it would likely fall under the regulatory jurisdiction of the USACE, RWQCB, CDFG, and/or County.

No other surface drainage features or waterbodies occur that would qualify as potential jurisdictional waters and wetlands, including any other man-made or natural drainage ditches, round-bottom swales, streams, vernal pools, or ponds. Several man-made stock ponds and detention basins associated with agricultural practices occur within portions of the survey area. However, these ponds are isolated, man-made, and highly disturbed as a result of agricultural activities, and do not meet the criteria to be considered jurisdictional waters and wetlands.

The stock ponds and detention basins within the survey area were also assessed for their potential to support vernal pool conditions during the time of the surveys, including the presence or absence of vernal pool indicator plant species (USACE 1997), among other physical characteristics. No vernal pool indicator plant species were observed within the survey area during the December 2010 and May 2011 general biological surveys. Although several of the stock ponds and other low-lying depression swales within the survey area supported disturbed non-native species such as hyssop loosestrife, Italian ryegrass, and rabbitsfoot grass, these species are not designated as vernal pool indicator species and are common in a variety of habitats, not exclusively associated with vernal pools. Year 2011 was a favorable year in terms of rainfall amount and duration with respect to detection of vernal pool resources in the

region. Had any vernal pool indicator species been present within the survey area, they would have been readily identifiable during the May 2011 survey. None of the stock ponds were saturated or inundated during the May 2011 survey, and no vernal pool indicator plants were present. Historical imagery and field conditions suggest that the hydrology for the stock ponds and basins are derived primarily from man-made sources associated with agricultural activities. Artificial filling and draining of the ponds and basins throughout the year for agricultural purposes would disrupt natural astatic processes typical of true vernal pools; adversely affect soils and water chemistry; promote the establishment of non-native species; and, preclude the ability for most vernal pool resources to sustain. It is for these reasons that the stock ponds and basins within the survey area do meet the criteria to be considered vernal pools.

4.11 Other Unique Features / Resources

Habitat Connectivity and Wildlife Corridors

Development in the region has reduced the total available open space for wildlife populations, and in some instances, created isolated "islands" of habitat. In general, wildlife corridors and linkages are smaller constrained areas of habitat that connect larger areas of habitat which are otherwise separated by rugged terrain, changes in vegetation, or urban development. This allows for an exchange of gene pool between wildlife populations, which increases the genetic viability of otherwise isolated populations. Wildlife corridors are especially important for species with large habitat ranges or seasonal migrations. A corridor is a specific route that is used for the movement and migration of species, and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are comprised of fragmented archipelago arrangement of habitat over a linear distance. Corridors and linkages will be comprised of land features which accommodate the movement of all sizes of wildlife, including large animals on a regional scale. Their contributing areas will support adequate vegetation cover, providing visual continuity and long lines of sight, so as to encourage the use of the corridor by all types of wildlife. In San Diego County, important corridors/linkages have been identified on the local and regional scale, particularly in establishing a connection between the northern and southern regional populations of the federally threatened coastal California gnatcatcher.

No known wildlife corridors or linkages occur on or in the immediate vicinity of the survey area (County of San Diego 2009; SanGIS 2011). The survey area and immediate vicinity are constrained by existing developments and do not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages. What little open habitat remains has been reduced to small, fragmented, and low quality stands, which are disconnected and isolated from better quality habitat in the local and regional area. The survey area is not located within or adjacent to any areas designated as PAMA in the Draft North County Segment MSCP Subarea Plan. Therefore, the survey area does not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages.

Urban/Wildlands Interface and Adjacency Management Issues

An urban/wildlands interface is generally defined as land that presently contains, or will contain as a result of a proposed action, both elements of an urban setting and raw undeveloped land or protected land. This land is situated as such to present a sharply defined physical contrast between the two, potentially creating an adverse edge effect resulting from direct and indirect impacts derived from the urban elements. An urban/wildlands interface may be most recognizable in developments that occur within or immediately adjacent to completely undeveloped and undisturbed land that provides habitat for plant and wildlife species in the area.

The survey area does not occur on or immediately adjacent to any undeveloped habitat or areas currently in or proposed for preservation, including any areas proposed as PAMA in the Draft North County Plan. Development of the survey area would not result in any adverse edge effects because no undeveloped habitat or preserve areas occur on or in the immediate vicinity of the survey area.

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Chapter 5 SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

This Chapter provides a project-level biological resources impact analysis for the proposed project in support of review and processing of the project's Major Use Permit. The issues addressed in this Chapter are derived from the County's Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources for a Biological Resources Letter Report (County of San Diego 2010), in addition to Appendix G of the CEQA Guidelines. Mitigation, monitoring, and reporting requirements to eliminate or reduce project impacts to less than significant are provided in this Chapter.

5.1 Issue 1: Special-Status Species

The project could have a substantial adverse effect, either directly or through habitat modifications, on one or more species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Issue 1 Project-Level Impact Analysis

Special-Status Plant Species

As discussed in Chapter 4, no special-status plant species were determined to have a potential to occur within the survey area. No special-status plant species were observed within the survey area during the surveys conducted in December 2010 and May 2011. The project proposes impacts to disturbed land that is generally unsuitable for special-status plant species. No special-status plant species would be expected to occur within the proposed impact areas. Therefore, the proposed project is not anticipated to result in any substantial adverse effects on special-status plant species. Impacts would be considered less than significant and no mitigation would be required.

Special-Status Wildlife Species

As discussed in Chapter 4, two special-status wildlife species, Coronado Island skink and white-tailed kite, have a potential to nest or occupy the eucalyptus woodland habitat that occurs within the eastern portions of the survey area. Neither of these two species were observed or otherwise detected on or in the immediate vicinity of the survey area during the general biological surveys conducted in December 2010 and May 2011; no potential nests for white-tailed kite were observed. The proposed project would

not result in any direct impacts to the eucalyptus woodland habitat; therefore, no direct impacts to either of these two species would be anticipated.

White-tailed kites have been reported to nest within eucalyptus woodland habitat at locations approximately 1,000 feet to the east of the proposed impact area (CDFG 2011). Although no direct impacts would occur to suitable nesting habitat, construction activities could result in potential adverse indirect impacts if this species is found to be nesting within 500 feet of the proposed impact area. Excessive levels of construction noise, vibration, and/or lighting disturbances could result in nest abandonment and/or failure to white-tailed kite nests that may occur within 500 feet of the proposed impact area during construction. Such impacts could result in "take" of white-tailed kite individuals and/or eggs. White-tailed kites are California State fully-protected species pursuant to Section 3511 of the CFG Code. Impacts to this species would not be authorized and would be considered significant. Mitigation Measure Bio-1 would prevent impacts to the white-tailed kite and other nesting birds and raptors with the potential to nest in the vicinity of the proposed impact area.

The project would result in the removal of marginal foraging habitat for four non-listed special-status raptor species that were determined to have a potential to forage over the site, in addition to the white-tailed kite: Cooper's hawk, red-shouldered hawk, northern harrier, and barn owl. As described below for raptor foraging, the loss of potential foraging habitat provided by the field/pasture lands within the proposed impact area for these and other raptor species could be considered significant. Mitigation Measure Bio-2 below within Issue 2 would ensure that the loss of potential foraging habitat for these sensitive raptor species is compensated in accordance with County requirements. With the implementation of Mitigation Measure Bio-2, impacts to these species would be reduced to less than significant levels.

Nesting Birds

Although no special-status bird species would be expected to occur, the proposed project would result in the removal of potential nesting habitat for common (non-sensitive) birds protected under the MBTA and CFG Code. Construction of the proposed project could result in the removal or vegetation during the general bird nesting season (January 15 through August 30), and therefore, could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. Indirect impacts could occur as a result of construction noise and vibration in the immediate vicinity of an active nest, such that the disturbance results in a nest failure. These impacts would be considered significant in violation of the MBTA and CFG Code. Mitigation Measure Bio-1 would prevent impacts to nesting birds in violation of the MBTA and CFG Code. With the implementation of Mitigation Measure Bio-1, impacts to nesting birds would be reduced to less than significant levels.

Raptor Foraging

The proposed project would result in the removal of agricultural areas that provide marginal foraging opportunities for raptors know to occur in the region. Better quality raptor foraging habitat occurs off-site within the open grassland areas located further to the south, east, and west of the survey area. Based on the available habitat and location of proposed developments, the proposed project is

anticipated to result in impacts to more than 5 percent of the total area of raptor foraging habitat that occurs within the survey area. Although the habitat is relatively low in quality and its function in facilitating raptor foraging is limited, the loss of foraging habitat on the site could have a substantial adverse effect on the long-term survival of raptor species known to occur in the vicinity. Mitigation Measure Bio-2 below within Issue 2 would ensure that the loss of potential raptor foraging habitat is compensated in accordance with County requirements. With the implementation of Mitigation Measure Bio-2, impacts to raptor foraging would be reduced to less than significant levels.

Issue 1 Mitigation Measures

To avoid any direct or indirect impacts to nesting birds pursuant to the MBTA and CFG Code, the Major Use Permit shall include the following condition:

Bio-1 **Breeding Season Avoidance**. The project shall not result in any impacts to the California State fully-protected white-tailed kite and shall restrict all brushing, clearing and/or grading such that none will be allowed within 500 feet of nesting raptor habitat and/or 300 feet of migratory bird nesting habitat during the breeding season for raptors and migratory birds. This is defined as occurring between January 15 and August 30. The Director of Planning and Land Use may waive this condition, through written concurrence from the US Fish and Wildlife Service and the California Department of Fish and Game, that no nesting migratory birds or raptors are present in the vicinity of the brushing, clearing or grading.

5.2 Issue 2: Riparian Habitat or Sensitive Natural Community

The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Issue 2 Project-Level Impact Analysis

Riparian Habitat

No riparian habitat was determined to occur within the project site or proposed project impact area. As depicted on Exhibit 7, the proposed developments will be entirely contained within disturbed upland areas that are characterized by upland habitat types and vegetation associated with agricultural land. Therefore, no direct impacts to riparian habitat would occur as a result of project implementation. Although disturbed wetland habitat occurs within the extreme northern portion of the survey area, south of Warnock Drive, no developments are proposed on or in the immediate vicinity of this area. The project proposes overhead connection of electrical utility lines over the areas characterized by disturbed wetland in the northeastern portion of the survey area. No trenching or other ground disturbance activities affecting the habitat below the overhead line would occur. Further, project developments will be set back a minimum of 50 feet from the disturbed wetland habitat, and no indirect impacts would be

anticipated. Therefore, the project would not have a substantial adverse effect on riparian habitat. Impacts would be considered less than significant and no mitigation would be required.

Sensitive Natural Communities

The project would result in the permanent removal of several common (non-sensitive), non-native or man-made upland habitat or land use types, only one of which is considered sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFG or USFWS. The project's impacts to habitat types are depicted on Exhibit 7 and summarized below in Table 2.

Table 2 Habitats / Vegetation Communities Impacts and Mitigation

Habitat/Vegetation Community (Holland Code)	Existing On-Site (Acres)	Existing Off-Site (Acres)	On-Site Impacts[1] (Acres)	Off-Site Impacts (Acres)	Mitigation Ratio	Mitigation Required (Acres)	Preserved On-Site (Acres)	Impact Neutral (Acres)	Off-Site Mitigation (Acres)
Disturbed Wetland (11200)	0.03	0.74	0.00	0.00	3:1	0.00	0.00	0.00	0.00
Urban/Developed (12000)	0.53	0.88	0.53	0.00	-	-	N/A	N/A	N/A
Intensive Agriculture (18200)	0.06	3.68	0.06	0.00	-	-	N/A	N/A	N/A
Field/Pasture (18310)	17.16	8.37	17.16	0.00	0.5:1	8.58	0.00	0.00	8.58
Row Crops (18320)	26.04	8.64	25.94	0.00	-	-	N/A	N/A	N/A
Non-Native Grassland: Broadleaf Dominated (42210)	1.65	5.88	1.65	0.00	0.5:1	0.83	0.00	0.00	0.83
Eucalyptus Woodland (79100)	0.03	1.26	0.03	0.00	-	-	N/A	N/A	N/A
TOTAL	**45.50**	**29.45**	**45.33**	**0.00**	**N/A**	**9.41**	**0.00**	**0.00**	**9.41**

[1]Excludes on-site disturbed wetland (0.03 acre), non-native grassland (0.04 acre), and row crop (0.10 acre) areas beneath the proposed overhead power connection area because project activities within these areas would not require any temporary or permanent direct impacts that would result in disturbance or removal of the habitat.

As summarized above, the project would not result in any direct impacts to native or naturalized habitat types, and a substantial portion of the project impacts are restricted to existing, common, non-native or man-made habitat types that do not require habitat-based compensatory mitigation. Two of the habitat types that will be permanently impacted, field/pasture and non-native grassland, have been assigned mitigation ratios and require habitat-based compensatory mitigation in accordance with County requirements. The overall biological function and value of these two low quality habitat types is limited. Neither of these two habitat types were determined to have the potential to support any special-status plant species or nesting special-status wildlife species. Both habitat types provide marginal foraging habitat for common and sensitive raptor species known to occur in the vicinity. Impacts to field/pasture and non-native grassland would be considered significant. Mitigation Measure Bio-2 below would ensure that the permanent loss of field/pasture and non-native grassland habitat is compensated in accordance with County requirements.

The proposed project would not occur adjacent to, or in the immediate vicinity of, any existing sensitive natural communities and habitats that could be indirectly affected by project construction or operation

activities. The proposed developments would be surrounded by existing disturbed and developed areas, or areas that currently support active agricultural land uses. The proposed project would be set back a minimum distance of 50 feet from the disturbed wetland habitat that occurs on and in the immediate vicinity of the survey area. The project does not propose any elements that would increase runoff, affect water quality, or otherwise indirectly impact the existing disturbed wetland habitat. The solar panels may require routine cleaning maintenance involving concentrated, low volume spraying of water from a hose and hand-cleaning with non-toxic and environmentally-safe cleaners. The areas beneath the panels will consist of gravel or a permeable binding agent. Any water running off the panels during cleaning maintenance or precipitation events would be directed onto the permeable ground surface below. The permeable surface would allow the water to infiltrate the ground thereby preventing any pooling or runoff from the site. Therefore, no adverse indirect impacts to sensitive natural communities and habitats would occur, and no mitigation beyond that which is proposed in Mitigation Measure Bio-2 would be required.

Issue 2 Mitigation Measures

To compensate the loss of field/pasture and non-native grassland habitat in accordance with County requirements, the Major Use Permit shall include the following condition:

> **Bio-2 Habitat-Based Compensatory Mitigation**. Habitat-based mitigation for impacts to 17.16 acres of field/pasture and 1.65 acres of non-native grassland shall be mitigated at a minimum ratio of 0.5:1 (0.5 acre of mitigation land for every 1.0 acre of habitat impacted) through the implementation of the following measure prior to project approval, thereby reducing potentially significant project impacts to the habitat to less than significant levels:
>
> i. The project applicant shall purchase 9.50 acres of off-site non-native grassland mitigation credits associated with existing conservation lands located in Ramona and Escondido. The mitigation shall include the purchase of 4.75 acres of credit from the "Hobbs" parcel, a 40.0-acre property located 2.5 miles northwest of the proposed project in Ramona. The mitigation shall also include the purchase of 4.75 acres of credits from the Daley Ranch Conservation Bank, a 2,842-acre property located 14.0 miles northwest of the proposed project in Escondido.

5.3 Issue 3: Jurisdictional Waters and Wetlands

The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Issue 3 Project-Level Impact Analysis

No potential jurisdictional waters and wetlands, including federally protected wetlands as defined by Section 404 of the Clean Water Act, were determined to occur within the proposed project impact area. The proposed developments will be entirely contained within disturbed upland areas that lack the

physical attributes and habitat to qualify them as potential jurisdictional waters and wetlands. Although disturbed wetland habitat supporting potential jurisdictional waters and wetlands occur within the northern portion of the survey area, south of Warnock Drive, no developments are proposed on or in the immediate vicinity of this area. The project proposes overhead connection of electrical utility lines over the areas characterized by disturbed wetland in the northeastern portion of the survey area. No trenching or other ground disturbance activities affecting the habitat below the overhead line would occur. All proposed developments will be set back a minimum of 50 feet from the disturbed wetland habitat. The solar panels may require routine cleaning maintenance involving concentrated, low volume spraying of water from a hose and hand-cleaning with non-toxic and environmentally-safe cleaners. Any water running off the panels during cleaning maintenance or precipitation events would be directed onto the ground surface below which will consist of gravel or a permeable binding agent. The permeable surface would allow the water to infiltrate the ground thereby preventing any pooling or runoff from the site. No indirect impacts would be anticipated. Therefore, the proposed project would not have a substantial adverse effect on any jurisdictional waters and wetlands, including federally protected wetlands as defined by Section 404 of the Clean Water Act, and no mitigation would be required.

Issue 3 Mitigation Measures

The proposed project was determined to not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Therefore, no mitigation would be required.

5.4 Issue 4: Wildlife Movement and Nursery Sites

The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Issue 4 Project-Level Impact Analysis

No known wildlife corridors or linkages, or nursery sites, occur on or in the immediate vicinity of the survey area (County of San Diego 2009; SanGIS 2011). The survey area and immediate vicinity are constrained by existing developments and do not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages, or nursery sites. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No mitigation would be required.

Issue 4 Mitigation Measures

The proposed project was determined to not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, no mitigation would be required.

5.5 Issue 5: Local Policies, Ordinances, and Adopted Plans

The project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

Issue 5 Project-Level Impact Analysis

The proposed project would not occur on or in the immediate vicinity of any areas subject to an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. The proposed project would occur within the boundaries of the proposed Draft North County Plan, but does not occur within areas proposed as PAMA. The project would not result in any impacts to resources of regional importance and would not prevent the Draft North County Plan from meeting the proposed conservation goals and objectives. Therefore, the project would not conflict with any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. No impacts would occur and no mitigation would be required.

As discussed above within Issue 1, construction of the proposed project could result in the removal or disturbance of nesting habitat during the general bird nesting season (January 15 through August 30), and therefore, could result in impacts to nesting birds in violation of the MBTA and CFG Code. Implementation of Mitigation Measure Bio-1 would prevent impacts to nesting birds in violation of the MBTA and CFG Code. No additional mitigation would be required.

As discussed above within Issues 2 and 3, low quality disturbed wetland habitat associated with a drainage swale occurs within the northern portions of the survey area, south of Warnock Drive. Based on the conditions observed during the December 2010 and May 2011 general biological surveys, the disturbed wetland habitat would meet the minimum criteria to be considered potential County RPO wetlands. No developments are proposed on or in the immediate vicinity of the potential County RPO wetlands. The project proposes overhead connection of electrical utility lines over the areas characterized by disturbed wetland in the northeastern portion of the survey area. No trenching or other ground disturbance activities affecting the habitat below the overhead line would occur. Further, project developments have been set back a minimum of 50 feet from the perimeter of the potential County RPO wetlands with the incorporation of a RPO wetland buffer adjacent to the proposed lease area. Any water running off the panels during cleaning maintenance or precipitation events would be directed onto the ground surface below which will consist of gravel or a permeable binding agent. The permeable surface would allow the water to infiltrate the ground thereby preventing any pooling or runoff from the site. No indirect impacts would be anticipated. No sensitive habitat lands occur on or in the immediate vicinity of the site. Therefore, the proposed project would not have a substantial adverse effect on County RPO wetlands or sensitive habitat lands, and would not conflict with any local policies or ordinances. The proposed project complies with Sections 86.604(a), (b), and (f) of the County's RPO. No impacts would occur and no mitigation would be required.

Issue 5 Mitigation Measures

With the implementation of Mitigation Measures Bio-1 provided above within Issue 1, the project would not conflict with any local plans, policies or ordinances protecting biological resources. No additional mitigation would be required.

Chapter 6 CUMULATIVE IMPACTS

A project list for the biological resources cumulative impact analysis has been compiled in accordance with County of San Diego Guidelines for Determining Significance for Biological Resources (County of San Diego 2010; County of San Diego 2011). The list has been developed through research of relevant past, present, and future projects captured within an approximate 2-mile radius from the proposed project. In addition to project location, the cumulative project list was selected based on comparability and relevancy to the proposed project in terms of project type, description, and impacted resources.

In addition to the proposed project, the cumulative project list includes the following projects: Cummings Ranch 1 (Permit Type 3810; Permit Number 03-005), Cummings Ranch 2 (Permit Type 3100; Permit Number 5344), Dekoven Project TPM (Permit Type 3200; Permit Number 21070), McDonald 1 (Permit Type 3800; Permit Number 09-005), McDonald 2 (Permit Type 3100; Permit Number 5560), McCandless TM (Permit Type 3100; Permit Number 5564), Lutheran Church (Permit Type 3300; Permit Number 08-017), Johnson TPM (Permit Type 3200; Permit Number 21160), Ramona Air Center 1 (Permit Type 3100; Permit Number 5554), Ramona Air Center 2 (Permit Type 3300; Permit Number 08-032), Ramona Air Center 3 (Permit Type 3301; Permit Number 71-396-01), and Downtown Ramona Wireless (Permit Type 3400; Permit Number 10-002). Project information that has been released for these twelve projects is available at the County DPLU.

As discussed within Chapter 5, the proposed project was determined to not have a significant adverse effect on federally protected wetlands or wildlife corridors and nursery sites. Therefore, the project would not contribute to the cumulative impact with respect to these issues, and the effects are not cumulatively considerable. No mitigation would be required.

However, also discussed in Chapter 5, the proposed project was determined to result in potential significant impacts to special-status species, including nesting birds protected under the MBTA and CFG Code, and sensitive natural communities. The project could therefore contribute to the cumulative impact with respect to special-status species, sensitive natural communities, and local policies, ordinances, and adopted plans protecting biological resources, as discussed below.

Of the twelve projects within the cumulative project area (including the proposed project), all could result in impacts to nesting birds and/or habitat for nesting birds that are protected under the MBTA and CFG Code. Past and present projects would have been, and are presently required, to restrict removal of potential nesting habitat to periods outside of the general breeding season, thereby avoiding impacts to nesting birds that are protected under the MBTA and CFG Code. Further, future projects potentially impacting nesting birds would be conditioned to avoid construction during the general breeding season as well such that impacts to nesting birds are avoided. Therefore, the cumulative

impact on nesting birds in violation of the MBTA and CFG Code would be mitigated to less than significant levels. No additional mitigation would be required.

Of the twelve projects within the cumulative project area, the following would result in impacts to sensitive natural communities, and namely, field/pasture lands and/or non-native grasslands: Sol Orchard-Ramona (18.81 acres); Dekoven Project TPM (3.51 acres); Lutheran Church (impact acreage not defined); Ramona Air Center 1, 2, and 3 (4.48 acres). Although not specifically defined in the available information, these impacts would also represent a loss in foraging habitat for raptor species, including special-status wildlife species. Therefore, the total known cumulative impact on field/pasture lands and/or non-native grassland habitat that provides suitable foraging opportunities for raptors (including sensitive raptors) is 26.80 acres. Impacts to field/pasture lands and non-native grasslands and potential raptor foraging habitat resulting from Sol Orchard-Ramona and Dekoven Project TPM are proposed to be mitigated at a 0.5:1 ratio at a County-approved mitigation bank. Mitigation has not been defined for Lutheran Church or the Ramona Air Center projects; however, these projects would be conditioned to mitigate the loss of field/pasture and non-native grassland habitat types at a minimum ratio of 0.5:1 in accordance with County requirements. Future projects impacting sensitive habitat in the area will be conditioned to mitigate at established ratios in areas with high habitat value, connectivity, and management in perpetuity, ensuring that cumulative impacts will be mitigated to less than significant. The preservation of on-site habitat and acquisition of off-site habitat within the cumulative project area in combination with Mitigation Measure Bio-2 would mitigate the cumulative impact on field/pasture and non-native grasslands and raptor foraging habitat to less than significant levels. No additional mitigation would be required.

Chapter 7 PREPARER / ORGANIZATIONS CONTACTED

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed: _____ Date: March 27, 2012

Karl L. Osmundson, Atkins
County Approved CEQA Consultant

Chapter 8 REFERENCES

Berkeley Mapper. 2011. Consortium of California Herbaria. Data provided by the participants of the Consortium of California Herbaria. Accessed May 25, 2011. Available online at http://ucjeps.berkeley.edu

Oberbauer, T., M.Kelly, and J.Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California" prepared by Robert F. Holland, Ph.D. for State of California, The Resources Agency, Department of Fish and Game (October 1986). March 2008. Accessed July 10, 2011. Available online at http://www.sdcounty.ca.gov/dplu/docs/Veg_Comm_SDCounty_2008.pdf

Calflora. 2011a. Calflora Plant Observation Library. Data provided by the participants of Calflora. Accessed May 25, 2011. Available online at http://www.calflora.org/occ/ and http://www.calflora.org/cgi-bin/occform.cgi

Calflora. 2011b. Calflora What Grows Here. Data provided by the participants of Calflora. Accessed May 25, 2011. Available online at http://www.calflora.org/app/wgh?page=entry

California Department of Fish and Game (CDFG). 2003. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. September. California Department of Fish and Game, California Natural Diversity Database. Sacramento, California.

California Department of Fish and Game (CDFG). 2008. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. September.

California Department of Fish and Game (CDFG). 2011a. Biogeographic Data Branch, California Natural Diversity Database (CNDDB), RareFind Version 3.1.0. July 2011 data.

California Department of Fish and Game (CDFG). 2011b. State and Federally Listed Endangered, Threatened, and Rare Plants of California. California Department of Fish and Game, Natural Diversity Data Base. Sacramento, California. January.

California Department of Fish and Game (CDFG). 2011c. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Game, Natural Diversity Data Base. Sacramento, California. January.

California Department of Fish and Game (CDFG). 2011d. Special Animals. California Department of Fish and Game, Natural Diversity Database. Sacramento, California. January.

City of San Diego. 1997. Final City of San Diego MSCP Subarea Plan. March 1997. Available online at http://www.sandiego.gov/planning/mscp/pdf/subareafullversion.pdf

County of San Diego. 2009. Draft North County Plan. February. Available online at http://www.sdcounty.ca.gov/dplu/mscp/docs/Plan_Appendices.pdf

County of San Diego. 2010. Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources. Fourth Revision. September 15, 2010. Land Use and Environmental Group. Department of Planning and Land Use. Department of Public Works. Available online at http://www.sdcounty.ca.gov/dplu/docs/Biological_Guidelines.pdf

County of San Diego. 2011. KivaNet Land Information System. County of San Diego Land Use and Environment Group. Available online at: http://landinfo.sdcounty.ca.gov/

Consortium of California Herbaria (Consortium). 2011. Data provided by the participants of the Consortium of California Herbaria. Accessed May 25, 2011. Available online at http://ucjeps.berkeley.edu

Google Earth. 2011. Google Earth 5.0.
Available for download online at http://earth.google.com/

Hickman, J.C. 1993. The Jepson Manual: Higher Plants of California. University of California Press. Berkeley, California.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program. California Department of Fish and Game. Sacramento, California.

Jepson Flora Project (Jepson). 2011. Jepson On-Line Interchange for California Floristics. 2009. Information provided by the participants of the University and Jepson Herbaria, U.C. Berkeley. Last updated September 2, 2009. (Retrieved from http://ucjeps.berkeley.edu/interchange.html)

Lightner, J. 2006. San Diego County Native Plants. San Diego, California: San Diego Flora.

Munz, P.A. 1974. A Flora of Southern California. University of California Press. Berkeley, California.

Oberbauer, T. 1996. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions, 6p.

Reiser, C.H. 1994. Rare Plants of San Diego County. Aquafir Press, Imperial Beach, CA. Accessed August 1, 2011. Abridged version available online at http://sandiego.sierraclub.org/rareplants/

San Diego Natural History Museum (SDNHM). 2011. San Diego County Plant Atlas Project. Available online at http://www.sdplantatlas.org/(S(gn2sqn45kw1fmc45trphjz55))/index.aspx

SanGIS. 2011. SanGIS Interactive Map. Information provided by the participants of San GIS. Available online at http://files.sangis.org/interactive/viewer/viewer.asp

State of California. 1989. Fish and Game Code Sections 1600 *et.seq.*

The Cornell Lab of Ornithology (Cornell). 2011. All About Birds Online Guide. Results of species inquiry for *Cathartes aura*. Accessed August 1, 2011. Available online at http://www.allaboutbirds.org/Page.aspx?pid=1189

The Weather Channel. 2011. Results of Weather inquiry for December 2010 and May 2011. Available online at http://www.weather.com/outlook/recreation/outdoors/monthly/USCA0982

U.S. Army Corps of Engineers (USACE). 1997. Indicator Species for Vernal Pools in Special Public Notice Regional General Conditions to the Nationwide Permits. Los Angeles District.

U.S. Department of Agriculture (USDA). 2011. Soil Survey Staff, Natural Resources Conservation Service, Web Soil Survey. Accessed May 25, 2011. Available online at http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

U.S. Fish and Wildlife Service (USFWS). 2011a. Species Reports. Accessed May 24, 2011. Available at http://ecos.fws.gov/tess_public

U.S. Fish and Wildlife Service (USFWS). 2011b. Critical Habitat Portal. Accessed May 24, 2011. Available at http://criticalhabitat.fws.gov

U.S. Fish and Wildlife Service (USFWS). 2011c. National Wetlands Inventory. Accessed May 24, 2011. Available at http://www.fws.gov/wetlands

U.S. Geological Survey (USGS). 1997. San Pasqual and Ramona, California 7.5 Minute Series (Topographic) Maps.

Appendix A
Plant and Animal Species Observed

Plant Species Observed

Scientific Name	Common Name	Habitat Observed Within [1]
Asteraceae	**Sunflower Family**	
Ambrosia psilostachya	western ragweed	FP, NNG, RC
**Centaurea solstitialis*	yellow star-thistle	FP, NNG
**Cirsium vulgare*	bull thistle	WET, NNG
**Conyza canadensis*	horseweed	FP, NNG
Heterotheca grandiflora	telegraph weed	NNG
**Picris echoides*	bristly ox-tongue	WET, NNG
**Sonchus sp.*	sow thistle	FP, NNG
Boraginaceae	**Borage Family**	
Amsinckia menziesii	fiddleneck	FP, NNG
Brassicaceae	**Mustard Family**	
**Hirschfeldia incana*	shortpod mustard	FP, NNG
**Raphanus raphanistrum*	wild radish	FP, NNG
**Sisymbrium irio*	London rocket	FP, NNG
Chenopodiaceae	**Goosefoot Family**	
***Amaranthus alus*	white tumbleweed	FP
**Chenopodium album*	lamb's quarters	FP, NNG
***Salsola tragus*	Russian thistle	FP, NNG
Euphorbiaceae	**Spurge Family**	
Croton setigerus	dove weed	FP, NNG, RC
Fabaceae	**Legume Family**	
**Melilotus alba*	white sweet clover	FP, NNG
Geraniaceae	**Geranium Family**	
**Erodium cicutarium*	filaree	FP, NNG
Juncaceae	**Juncus Family**	
Juncus bufonius var. occidentalis	toad rush	WET
Lythraceae	**Loosestrife Family**	
**Lythrum hyssopifolium*	hyssop loosestrife	NNG, RC
Malvaceae	**Mallow Family**	
**Malva parviflora*	cheeseweed	FP
Myrtaceae	**Gum Family**	

Scientific Name	Common Name	Habitat Observed Within [1]
**Eucalyptus globulus*	blue gum	EUC
Poaceae	**Grass Family**	
**Avena fatua*	slender wild oat	NNG
**Bromus diandrus*	ripgut	FP, NNG
**Cynodon dactylon*	Bermuda grass	NNG, WET
**Hordeum leporinum*	hare barley	NNG, RC
**Lamarckia aurea*	goldentop grass	NNG
**Lolium multiflorum*	Italian ryegrass	FP, NNG, WET
**Polypogon monspeliensis*	rabbitfoot grass	FP, NNG, RC
**Vulpia myuros*	rattail fescue	FP, NNG
Polygonaceae	**Buckwheat Family**	
**Rumex crispus*	curly dock	WET
Tamaricaceae	**Salt Cedar Family**	
**Tamarix sp.*	tamarisk	IA

[1] Habitat codes are as follows:

DEV	=	Urban/developed
IA	=	Intensive agriculture
NNG	=	Non-native grassland
FP	=	Field/pasture
RC	=	Row crops
WET	=	Disturbed wetland
EUC	=	Eucalyptus woodland

* Non-native or introduced species

Wildlife Species Observed

Scientific Name	Common Name	Habitat Observed Within [1]
REPTILES		
Iguanidae	**Iguanids**	
Uta stansburiana	side-blotched lizard	NNG
BIRDS		
Accipitridae	**Hawks, Eagles, and Relatives**	
Buteo jamaicensis	red-tailed hawk	EUC (fly over)
Charadridae	**Plovers, Dotterels, and Lapwings**	
Charadrius vociferus	killdeer	RC
Columbidae	**Pigeons and Doves**	
Columba livia	rock dove	IA
Zenaida macroura	mourning dove	RC, NNG
Corvidae	**Jays and Crows**	
Corvus brachyrhynchos	American crow	IA, RC
Corvus corax	common raven	RC
Emberizidae	**Emberizids**	
Melospiza melodia	song sparrow	WET
Falconidae	**Falcons**	
Falco sparverius	American kestrel	RC
Fringillidae	**Finches**	
Carpodacus mexicanus	house finch	DEV, EUC, IA
Carduelis psaltria	lesser goldfinch	EUC
Hirundinidae	**Swallows**	
Stelgidopteryx serripennis	northern rough-winged swallow	RC (fly over)
Icteridae	**Blackbirds and Orioles**	
Icterus bullockii	Bullock's oriole	EUC
Molothrus ater	brown-headed cowbird	RC (fly over)

Scientific Name	Common Name	Habitat Observed Within [1]
Quiscalus mexicanus	great-tailed grackle	RC (fly over)
Sturnella neglecta	western meadowlark	NNG, WET
Mimidae	**Mockingbirds and Thrashers**	
Mimus polyglottos	northern mockingbird	DEV, DIS
Recurvirostridae	**Avocets and Stilts**	
Recurvirostra americana	American avocet	IA
Sturnidae	**Starlings**	
Sturnus vulgaris	European starling	DEV
Trochilidae	**Hummingbirds**	
Calypte anna	Anna's hummingbird	NNG
Tyrannidae	**Tyrant Flycatchers**	
Sayornis nigricans	black phoebe	NNG
Tyrannus verticalis	western kingbird	NNG, RC
MAMMALS		
Bovidae	**Cows**	
Bos taurus	domestic cow	FP
Canidae	**Wolves and Foxes**	
Canis familiaris	domestic dog	DEV, IA
Geomyidae	**Pocket Gophers**	
Thomomys bottae	Botta's pocket gopher	FP, NNG
Sciuridae	**Squirrels**	
Spermophilus beecheyi	California ground squirrel	NNG

[1] Habitat codes are as follows:

DEV	=	Urban/developed
IA	=	Intensive agriculture
NNG	=	Non-native grassland
FP	=	Field/pasture
RC	=	Row crops
WET	=	Disturbed wetland
EUC	=	Eucalyptus woodland

Appendix B
Special-Status Plant and Animal Species Tables

Table B-1 Special-Status Plant Species Known to Occur in the Project Vicinity

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
Chaparral beargrass	*Nolina cismontana*	—	—	1B.2		Coastal sage scrub and chaparral with xeric conditions supported by sandstone or gabbroic soils. Elevation Limits: 140 – 1,275 meters	Evergreen shrub	May - Jul	**Not Likely to Occur.** No suitable vegetation or soils are present within the survey area. This conspicuous species was not observed during the May 2011 survey.
Coulter's saltbush	*Atriplex coulteri*	—	—	1B.2	List A	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Alkaline low places. Coastal mesas and Ramona grasslands. Elevation Limits: 10 – 440 meters	Perennial herb	Mar – Oct	**Not Likely to Occur.** No suitable soils or alkaline conditions are present within the survey area. This conspicuous species was not observed during the May 2011 survey. This species is known to occur further to the northwest of the site within the Ramona grasslands.
Dean's milk-vetch	*Astragalus deanei*	—	—	1B.1	List A	Chaparral, coastal scrub, and riparian forest. Open, brushy south-facing slopes in Diegan coastal sage scrub, and sometimes on recent post-burn hillsides. Elevation Limits: 75 – 670 meters	Perennial herb	Feb – May	**Not Likely to Occur.** No suitable vegetation associations or conditions are present within the survey area. This conspicuous perennial was not observed during the May 2011 survey.
Delicate clarkia	*Clarkia delicata*	—	—	1B.2	List A	Central and southern oak woodlands and chaparral. Elevation Limits: 235 – 1,000 meters	Annual herb	Apr – Jun	**Not Likely to Occur.** No suitable vegetation associations are present within the survey area. This species was not observed during the May 2011 survey.
Encinitas baccharis	*Baccharis vanessae*	FT	CE	1B.1	List A	Low-growing stands of mixed chaparral supported by loamy sand, to course sandy and rocky soils. Often associated with steep slopes and granitic boulders. Elevation Limits: 60 – 720 meters	Deciduous shrub	Aug – Nov	**Not Likely to Occur.** No suitable vegetation associations, soils, or land features are present within the survey area. This conspicuous shrub was not observed during surveys.
Felt-leaved monardella	*Monardella hypoleuca lanata*	—	—	1B.2	List A	Chaparral understory and cismontane woodland supported by rocky silt loams and igneous rock lands. Southern foothill peaks.	Rhizomatous herb	Jun - Aug	**Not Likely to Occur.** No suitable vegetation associations, soils, or land features are present within the survey area.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
						Elevation Limits: 300 – 1,190 meters			
Fish's milkwort	*Polygala cornuta fishiae*	—	—	4.3	List D	Xeric and mesic sites in chaparral, cismontane woodland, and riparian woodland supported by fine sandy loam, stony loam, and very rocky coarse sandy loam soils. Foothill peaks and especially metavolcanic and gabbro soils. Elevation Limits: 100 – 1,100 meters	Deciduous shrub	May - Aug	**Not Likely to Occur.** No suitable vegetation associations, soils, or land features are present within the survey area. This conspicuous shrub was not observed during the May 2011 survey.
Gander's butterweed	*Senecio ganderi*	—	CR	1B.2	List A	Chaparral understory, often at burn sites, supported by stony fine sandy loam and gabbroic outcrops. Elevation Limits: 400 – 1,200 meters	Perennial herb	Apr - Jun	**Not Likely to Occur.** No suitable vegetation associations, soils, or land features are present within the survey area. This conspicuous perennial was not observed during the May 2011 survey.
Heart leaved pitcher sage	*Lepechinia cardiophylla*	—	—	1B.2	List A	Chaparral, closed-cone, cismontane woodland, and coniferous forest supported by rocky fine sandy loams and volcanic soils. Otay and San Miguel Mountains. Elevation Limits: 520 – 1,370 meters	Perennial shrub	Apr - Jul	**Not Likely to Occur.** No suitable vegetation associations, soils, or land features are present within the survey area. This conspicuous shrub was not observed during the May 2011 survey. The survey area occurs below the known elevation limits for this species.
Lakeside ceanothus	*Ceanothus cyaneus*	—	—	1B.2	List A	Very dense stands of taller mixed chaparral, and closed-cone coniferous forest supported by rocky and rocky coarse sandy loam soils. Elevation Limits: 235 – 755 meters	Evergreen shrub	Apr – Jun	**Not Likely to Occur.** No suitable vegetation associations or soils are present within the survey area. This conspicuous evergreen was not observed during the May 2011 survey.
Little mousetail	*Myosurus minimus ssp. apus*	—	—	3.1	List C	Vernal pools. Elevation Limits: 20 – 640 meters	Annual herb	Mar – Jun	**Not Likely to Occur.** No vernal pools or suitable ephemeral features occur within the survey area. This species was not observed during the May 2011 survey.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
Long-spined spineflower	*Chorizanthe polygonoides var. longispina*	—	—	1B.2	List A	Chaparral, coastal scrub, meadows, valley and foothill grassland, and vernal pools supported by clay soils. Elevation Limits: 30 – 1,530 meters	Annual herb	Apr – Jul	**Not Likely to Occur.** No suitable habitat types or soils are present within the survey area. This species was not observed during the May 2011 survey.
Moran's nosegay	*Navarretia fossalis*	FT	—	1B.1	List 1A	Vernal pools. Elevation Limits: 30 – 655 meters	Annual herb	Apr – Jun	**Not Likely to Occur.** No vernal pools or suitable ephemeral features occur within the survey area. This species was not observed during the May 2011 survey.
Moreno currant	*Ribes canthariforme*	—	CR	1B.3	List A	Chaparral and riparian scrub. Elevation Limits: 340 – 1,200 meters	Deciduous shrub	Feb – Apr	**Not Likely to Occur.** No suitable vegetation associations are present within the survey area.
Narrow-petaled rein orchid	*Piperia leptopetala*	—	—	4.3	List D	Cismontane woodland, lower and upper montane coniferous forest. Elevation Limits: 380 – 2,225 meters	Perennial herb	May - Jul	**Not Likely to Occur.** No suitable habitat types or soils are present within the survey area. This species was not observed during the May 2011 survey. The survey area likely occurs outside this species' known range.
Nuttall's scrub oak	*Quercus dumosa*	—	—	1B.1	List A	Closed-cone coniferous forest, chaparral, coastal scrub supported by sandy clay loam soils. Elevation Limits: 15 – 400 meters	Evergreen shrub	Feb – Apr	**Not Likely to Occur.** No suitable vegetation associations are present within the survey area. This conspicuous species was not observed during the May 2011 survey. The survey area occurs above this species' known elevation limits.
Ocrutt's brodiaea	*Brodiaea orcuttii*	—	—	1B.1	List A	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows. Mesic, clay habitats; sometimes serpentine; usually associated with vernal pools and small drainages. Known elevation limits: 30 – 1,615 meters	Bulbiferous herb	May - Jul	**Low Potential to Occur.** The field/pasture on-site contains marginal grassland habitat for this species; however, historic agricultural-related disturbances have resulted in degradation of the habitat, prevalence of non-natives, and soil and hydrology disturbances. This species was not observed during the May 2011 survey.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
Palmer's grapplinghook	*Harpagonella palmeri*	—	—	4.2	List D	Coastal sage scrub in south San Diego County, chaparral, and grasslands supported by clay soils. Known elevation limits: 20 – 955 meters	Annual herb	Mar – May	**Not Likely to Occur.** No suitable soils or habitat conditions are present within the survey area. This conspicuous species was not observed during the May 2011 survey. The survey area may occur outside of this species' known range.
Parish's brittlescale	*Atriplex parishii*	—	—	1B.1	List A	Alkali meadows, vernal pools, chenopod scrub, playas. Ramona grasslands. Known elevation limits: 25 – 1,900 meters	Annual herb	Jun – Oct	**Not Likely to Occur.** No suitable soils or alkaline conditions are present within the survey area. This species is known to occur further to the northwest of the site within the Ramona grasslands.
Parry's tetracoccus	*Tetracoccus dioicus*	—	—	1B.2	List A	Chaparral, often chamise dominated, and coastal sage scrub, preferred soils are of the Las Posas series. Known elevation limits: 165 – 1,000 meters	Deciduous shrub	Apr - Jun	**Not Likely to Occur.** No suitable vegetation associations are present within the site. This conspicuous perennial was not observed during the May 2011 survey.
Peninsular spine flower	*Chorizanthe leptotheca*	—	—	4.2	List D	Xeric openings in chamise chaparral. Also within coastal sage scrub and lower montane coniferous forest. Granitic soils and substrates associated with alluvial fans in inland areas. Elevation Limits: 300 – 1,900 meters	Annual herb	May - Aug	**Not Likely to Occur.** The vegetation and soils associated with this species are not present within the site. This species was not observed during the May 2011 survey.
Ramona horkelia	*Horkelia truncata*	—	—	1B.3	List A	Chaparral, cismontane woodland. Habitats in California include mixed chaparral, vernal streams, and disturbed areas near roads. Gabbro and metavolcanic foothill slopes and peaks. Clay soil. Known elevation limits: 400 – 1,300 meters	Perennial herb	May - Jun	**Not Likely to Occur.** The vegetation and soils associated with this species are not present within the site. This species was not observed during the May 2011 survey.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
Robinson's pepper-grass	*Lepidium virginicum var. robinsonii*	—	—	1B.2	List A	Chaparral, coastal scrub. Known elevation limits: 1 – 885 meters	Annual herb	Jan – Jul	**Not Likely to Occur.** The vegetation and soils associated with this species are not present within the site. This conspicuous grass was not observed during the May 2011 survey.
Round-leaved filaree	*California macrophylla*	—	—	1B.1	—	Cismontane woodland, valley and foothill grassland. Known elevation limits: 15 – 1,200 meters	Annual herb	Mar – May	**Low Potential to Occur.** The field/pasture on-site contains marginal grassland habitat for this species; however, historic agricultural-related disturbances have resulted in degradation of the habitat, prevalence of non-natives, and soil and hydrology disturbances. This species was not observed during the May 2011 survey. In the local area, this species is known to occur within the Ramona grasslands.
San Diego goldenstar	*Muilla clevelandii*	—	—	1B.1	List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools supported by clay soils. Known elevation limits: 50 – 465 meters	Bulbiferous herb	Apr – May	**Not Likely to Occur.** The soils and conditions associated with this species are not present within the site. This conspicuous species was not observed during the May 2011 survey.
San Diego milk-vetch	*Astragalus oocarpus*	—	—	1B.2	List A	Chaparral openings, cismontane woodland, meadows. Lower mountain slopes in San Diego County. Known elevation limits: 305 – 1,524 meters	Perennial herb	May – Aug	**Not Likely to Occur.** The vegetation and soils associated with this species are not present within the site. This conspicuous perennial was not observed during the May 2011 survey.
San Diego thorn-mint	*Acanthomintha ilicifolia*	FT	SE	1B.1	List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools supported by clay soils. Known elevation limits: 10 –960 meters	Annual herb	Apr – Jun	**Not Likely to Occur.** The soils and conditions associated with this species are not present within the site. This species was not observed during the May 2011 survey.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur
San Miguel savory	*Satureja chandleri*	—	—	1B.2	List A	Coastal scrub, chaparral, riparian woodland, cismontane woodland, oak woodland, and valley and foothill grassland supported by rocky, gabbroic or metavolcanic soils. Known elevation limits: 120 – 1,075 meters	Perennial shrub	Mar – Jul	**Not Likely to Occur.** No suitable vegetation or soils associations are present within the site. This conspicuous perennial was not observed during the May 2011 survey.
Southern tarplant	*Centromadia parryi* ssp. *australis*	—	—	1B.1	List A	Marshes and swamps (margins), valley and foothill grassland. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. Known elevation limits: 0 – 425 meters	Annual herb	May - Nov	**Low Potential to Occur.** The field/pasture and non-native grassland on-site contains marginal habitat for this species; however, historic agricultural-related disturbances have resulted in degradation of the habitat, prevalence of non-natives, and soil and hydrology disturbances. This species was not observed during the May or December 2011 survey.
Summer holly	*Comarostaphylis diversifolia* ssp. *diversifolia*	—	—	1B.2	List A	Chaparral. Often in mixed chaparral in California, sometimes post-burn. Known elevation limits: 30 – 550 meters	Evergreen shrub	Apr - Jun	**Not Likely to Occur.** No suitable vegetation or soils associations are present within the site. This conspicuous evergreen shrub was not observed during the May 2011 survey.
Variegated dudleya	*Dudleya variegata*	—	—	1B.2	List A	Chaparral, coastal scrub, cismontane woodland, valley and foothill grassland supported by clay soils. Known elevation limits: 3 – 580 meters	Perennial herb	Apr – Jun	**Not Likely to Occur.** No suitable soils associations or conditions are present within the site. This conspicuous perennial was not observed during the May 2011 survey.
Willowy monardella	*Monardella viminea*	FE	SE	1B.1	List A	Coastal scrub/alluvial ephemeral washes with adjacent coastal scrub, chaparral, or sycamore woodland. Known elevation limits: 3 – 580 meters	Perennial herb	Jun – Aug	**Not Likely to Occur.** No suitable vegetation or soils associations are present within the site. This conspicuous perennial was not observed during the May 2011 survey.

(1) **Federal Status – FE =** Federally Endangered; **FT =** Federally Threatened; **PE =** Proposed Endangered; **PT =** Proposed Threatened; **FC =** Candidate for federal listing; **FSC =** Species of Concern (No longer recognized as a federal designation.)

(2) **State Status – CE =** California Endangered; **CT =** California Threatened; **CR =** California Rare

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	County of San Diego[4]	Habitat Associations	Life Form	Blooming Period	Potential to Occur

[3] **California Native Plant Society (CNPS) – 1A** = Plants presumed extinct in California; **1B** = Plants rare, threatened, or endangered in California and elsewhere; **2 =** Plants rare, threatened, or endangered in California, but more common elsewhere; **3 =** Plants in need of more information; **4 =** Plants of limited distribution. ****** = No longer recognized as Sensitive by CNPS

[4] **County of San Diego – List A** = Plants rare, threatened or endangered in California and elsewhere; **List B** = Plants rare, threatened or endangered in California but more common elsewhere; **List C** = Plants which may be rare, but more information is needed to determine their true rarity status; **List D** = Plants of limited distribution and are uncommon, but no presently rare or endangered.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 5 miles) of the survey area. The diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the survey area. The survey area is located well outside the species known range and/or elevation limits.

Low Potential to Occur - There is a historical record of the species and potentially suitable habitat on or in the vicinity of the survey area, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species would occur. The survey area is located just outside the species known range and/or elevation limits.

Moderate Potential to Occur -The diagnostic habitat associated with the species occurs on or in the immediate vicinity of the survey area, but there is not a recorded occurrence of the species within the immediate vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity. The survey area is located within the species known range and/or elevation limits.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the survey area (within 5 miles). The survey area is located within the species known range and/or elevation limits.

Species Present - The species was observed on within the survey area at the time of the survey or during a previous biological survey.

Table B-2 Special-Status Animal Species Known to Occur in the Project Vicinity

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
AQUATIC INVERTEBRATES						
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE	—	Group 1	Vernal pools and shallow ephemeral ponds.	**Not Likely to Occur.** No suitable ephemeral pool habitat occurs on and in the immediate vicinity of the site.
INSECTS						
Hermes copper	*Lycaena hermes*	—	—	Group 1	Found in southern mixed chaparral and coastal sage scrub at western edge of Laguna mountains. Requires host plant *Rhamnus crocea* in close proximity to *Eriogonum fasciculatum* or other nectar sources.	**Not Likely to Occur.** No suitable habitat occurs on and in the immediate vicinity of the site. This species is not likely to occur in the area.
REPTILES AND AMPHIBIANS						
Arroyo toad	*Anaxyrus californicus*	FE	SSC	Group 1	Found in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Requires rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	**Not Likely to Occur.** No suitable aquatic habitat occurs on or in the immediate vicinity for breeding site. The swale that occurs within the northern portions of the survey area does not support suitable substrate, cover, or hydrology for this species. Due to lack of known breeding sites in immediate area, this species is not likely to aestivate or disperse over the site.
Coast (San Diego) horned lizard	*Phrynosoma coronatum (blainvillii population)*	—	SSC	Group 1	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions.	**Not Likely to Occur.** Marginal soils and cover occurs within portions of the site; however, existing disturbances and lack of naturalized habitat strongly reduce the potential for this species and its primary forage to occur.
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	—	SSC	Group 2	Found in brushy or shrubby vegetation in coastal southern California.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.
Coastal rosy boa	*Charina trivirgata roseofusca*	—	—	Group 2	Found in desert and chaparral habitats from the coast to the Mojave and Colorado Deserts. Prefers moderate to dense vegetation and rocky cover.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.
Coastal western whiptail	*Cnemidophorus tigris multiscutatus*	—	SSC	Group 2	Found in deserts and semiarid areas with sparse vegetation and open areas and in woodland and riparian areas. Substrate may be firm soil, sandy, or rocky at surface.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
Coronado island skink	*Eumeces skiltonianus interparietalis*	—	SSC	Group 2	Found in grassland, chaparral, pinyon-juniper and juniper sage woodland, and pine-oak and pine forests.	**High Potential to Occur.** This species has been reported from eucalyptus woodland habitat approximately 1,000 feet to the immediate east of the site. Suitable eucalyptus woodland habitat occurs immediately off-site in the eastern portions of the survey area.
Northern red-diamond rattlesnake	*Crotalus ruber ruber*	—	SSC	Group 2	Occurs from coastal San Diego County to the eastern slopes of the mountains and in desert habitats. Occurs from sea level to 900 meters in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.
Orange-throated whiptail	*Cnemidophorus hyperythrus*	—	SSC	Group 2	Coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and sandy areas with patches of brush and rocks. Perennial plants required to support its primary prey termites.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.
San Diego ringneck snake	*Diadophis punctatus similes*	—	—	—	Found in open, fairly rocky areas. Use boards, flat rocks, woodpiles, stable talus, rotting logs and small ground holes for cover.	**Not Likely to Occur.** No suitable habitat occurs. Existing disturbances and lack of naturalized habitat strongly reduce the potential for this species to occur.
Two-striped garter snake	*Thamnophis hammondii*	—	SSC	Group 1	Coastal California from vicinity of Salinas to northwest Baja California from sea level to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**Not Likely to Occur.** No suitable aquatic habitat occurs on or in the vicinity of the site.
Western pond turtle	*Emys marmorata*	—	SSC	Group 1	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Requires basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Not Likely to Occur.** No suitable aquatic habitat occurs on or in the vicinity of the site.
Western spadefoot toad	*Scaphiopus hammondii*	—	SSC	Group 2	Primarily a terrestrial toad requiring suitable burrows in loose soils 1 meter in depth. Require temporary rainpools and vernal pools (for breeding) lasting three weeks with cool to warm temperatures and absence of predators (crayfish, bullfrogs, etc.).	**Low Potential to Occur.** Marginal pond and swlae habitat occur on or in the immediate vicinity of the site. There are a number of human-related disturbances and predators present on and in the immediate vicinity of the site that would likely deter this species from occurring.
BIRDS						
Barn owl	*Tyto alba*	—	—	Group 2	Year-round resident of open habitats, such as grasslands, deserts, marshes, and agricultural fields. Forages on small mammals. Cavity nester.	**High Potential to Occur.** No suitable nesting habitat occurs on or in the immediate vicinity of the project site for this species. However, marginal foraging habitat exists, and this species is known to occur throughout the project vicinity.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
Bell's sage sparrow	*Amphispiza belli belli*	—	—	Group 1	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south portions of its range. Nests are located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories are about 50 yards apart.	**Not Likely to Occur.** No suitable nesting or foraging habitat occurs within the site.
Burrowing owl	*Athene cunicularia*	—	SSC	Group 1	Open grasslands and habitat with low vegetation and long lines of sight. Requires small mammal burrows and crevices for burrowing.	**Low Potential to Occur.** Marginal nesting and foraging habitat occurs on and in the immediate vicinity of the site. Very few burrows suitable for this species were observed within the survey area due to the highly compacted soils and agricultural activities. No burrowing owl or burrowing owl sign was observed during the December 2010 and May 2011 surveys. The site and immediate vicinity is somewhat isolated from known occurrences further to the northwest in the Ramona grasslands.
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*	—	SSC	Group 1	Coastal sage scrub with tall *Opuntia* cactus for nesting and roosting.	**Not Likely to Occur.** No suitable nesting or foraging habitat occurs within the site.
Coastal California gnatcatcher	*Polioptila californica californica*	FT	SSC	Group 1	Obligate, permanent resident of coastal sage scrub below 2500 ft in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**Not Likely to Occur.** No suitable habitat occurs on or in the vicinity of the site. The site is isolated from known populations in the region.
Cooper's hawk	*Accipiter cooperii*	—	SSC	Group 1	(Nesting) Open, uninterrupted, or marginal type woodland. Nest sites mainly found in riparian growths of deciduous trees, live oaks.	**High Potential to Occur.** Marginal foraging habitat exists throughout the site, and this species is known to occur in the vicinity. No highly suitable nesting habitat occurs on or in the immediate vicinity of the site.
Golden eagle	*Aquila chrysaetos*	—	CFP	Group 1	(Nesting and Wintering) Rolling foothills and mountain areas, juniper-sage flats, and deserts. Primarily associated with cliff-walled canyons and large trees in open habitats for nesting.	**Not Likely to Occur.** No suitable nesting habitat occurs on or within 5,000 feet of the site. Marginal foraging habitat occurs; however, this species is not likely to forage on the site.
Least Bell's Vireo	*Vireo bellii pusillus*	FE	CE	Group 1	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	**Not Likely to Occur.** No suitable nesting or foraging habitat occurs on or in the immediate vicinity of the site.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
Northern harrier	*Circus cyaneus*	—	SSC	Group 1	Coastal salt and freshwater marsh. Nests and forages in grasslands, from salt grass in desert sink to mountain Cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**High Potential to Occur.** No suitable nesting habitat occurs on or in the immediate vicinity of the project site for this species. However, marginal foraging habitat exists, and this species is known to occur throughout the project vicinity.
Red-shouldered hawk	*Buteo lineatus*	—	—	Group 1	Mature deciduous and mixed woodland and forest habitats near water sources. An open understory is preferred for hunting. This species nests primarily in riparian growths of deciduous trees.	**High Potential to Occur.** No suitable nesting habitat occurs on or in the immediate vicinity of the project site for this species. However, marginal foraging habitat exists, and this species is known to occur throughout the project vicinity.
Sharp-shinned hawk	*Accipiter striatus*	—	SSC	Group 1	(Nesting) Ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers riparian areas.	**Not Likely to Occur.** No suitable nesting habitat occurs on or in the immediate vicinity of the project site for this species.
Southern California rufous-crowned Sparrow	*Aimophila ruficeps canescens*	—	—	Group 1	Found in coastal sage scrub and sparse mixed chaparral.	**Not Likely to Occur.** No suitable habitat occurs on or in the vicinity of the site.
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE	CE	Group 1	Riparian woodlands.	**Not Likely to Occur.** No suitable habitat occurs on or in the vicinity of the site.
Tricolored blackbird	*Agelaius tricolor*	—	SSC	Group 1	Requires open water, protected nesting substrate, and foraging area with available insect prey.	**Not Likely to Occur.** No suitable habitat occurs on or in the vicinity of the site.
Turkey vulture	*Cathartes aura*	—	—	Group 2	Found in open country, woodlands, and near farms.	**Not Likely to Occur.** This species was observed flying over the project site during the December 2010 survey. No nesting habitat or highly suitable foraging occurs on the project site for this species.
White-tailed kite	*Elanus leucurus*	—	SFP	Group 1	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**High Potential to Occur.** This species has been reported nesting at locations approximately 1,000 feet to the east of the site. Suitable nesting habitat occurs within the eucalyptus woodland habitat that occur off-site, within the eastern portions of the survey area. Marginal foraging habitat exists throughout the site.
Yellow-breasted chat	*Icteria virens*	—	SSC	Group 1	Summer resident that inhabits riparian thickets of willow and other brushy tangles near watercourses.	**Not Likely to Occur.** No suitable habitat occurs on or in the vicinity of the site.
Mammals						

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
American badger	*Taxidea taxus*	—	SSC	Group 2	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs its own burrows.	**Not Likely to Occur.** No suitable nesting and burrowing habitat occurs. Marginal foraging habitat occurs, but the land uses associated with the site strongly reduce the potential for this species to occur. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Big free-tailed bat	*Nyctinomops macrotis*	—	SSC	Group 2	These bats live in rugged habitats in the Southwest in the summer and migrate to Mexico in the winter. They prefer rocky cliffs in weathered rock fissures and crevices. Also, roost in buildings and in terrestrial plants including desert shrubs.	**Not Likely to Occur.** No suitable habitat occurs on or in the immediate vicinity of the site.
Dulzura California pocket mouse	*Chaetodipus californicus femoralis*	—	SSC	Group 2	Variety of habitats including coastal scrub, chaparral, and grasslands in San Diego County. Associated with grass-chaparral edges.	**Not Likely to Occur.** No suitable habitat occurs on or in the immediate vicinity of the site. The observed soils within the majority of the site are highly compacted and disturbed as a result of agricultural practices. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Fringed myotis	*Myotis thysanodes*	—	—	Group 2	Found in a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.
Greater western mastiff bat	*Eumops perotis californicus*	—	SSC		Found in the lower and upper Sonoran desert scrub near cliffs, preferring the rugged rocky canyons with abundant crevices. During winter months it goes into torpor every day, but arouses and leaves the roost to forage at night when temperatures at dusk are above 5° C. Prefer crowding into tight crevices.	**Not Likely to Occur.** No suitable roosting habitat was observed on the site. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site, which would likely deter this species from using the any portions of the project footprint and immediate vicinity. The site likely occurs outside of this species known range.
Hoary bat	*Lasiurus cinereus*	—	—	—	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
Long legged myotis	*Myotis volans*	—	—	Group 2	Found in brush, woodland, and forest habitats, especially coniferous woodlands and forests. Uses caves and mines.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.
Long-eared myotis	*Myotis evotis*	—	—	Group 2	Found in all brush, woodland and forest habitats from sea level to about 9,000 ft. Prefers coniferous woodlands and forests. Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.
Mountain lion	*Felis concolor*	—	—	Group 2	Uses rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral, as well as riparian areas that provide protective habitat connections for movement between fragmented core habitat. Also, need both vertical and horizontal cover components, such as rocks and downed logs, to feel secure enough to bed.	**Not Likely to Occur.** There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	—	SSC	Group 2	Found in coastal scrub, chaparral, grasslands, and sagebrush, among other habitat types, in western San Diego County.	**Not Likely to Occur.** No suitable habitat occurs on or in the immediate vicinity of the site. The observed soils within the majority of the site are highly compacted and disturbed as a result of agricultural practices. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Pallid bat	*Antrozous pallidus*	—	SSC	Group 2	Found in rocky, mountainous areas and near water. Also, found over more open, sparsely vegetated grasslands, and prefer foraging in the open. Uses three different roosts: 1) the day roost is in a warm, horizontal opening such as rock cracks; 2) the night roost is in the open, near foliage; and 3) the hibernation roost, which is in caves or cracks in rocks.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.
Pocketed free-tailed bat	*Nyctinomops femorosacca*	—	SSC	Group 2	This is a medium sized bat with dark brown to gray fur is distinguished by ears that are joined at the base, long narrow wings, and long foot hairs. This species is an inhabitant of semiarid desert lands. It uses day-roosts in caves, crevices in cliffs, and under the roof tiles of buildings. Variety of arid areas in southern California: pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Prefers rocky areas with high cliffs.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	—	SSC	Group 2	Found in coastal sage scrub with intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges.	**Not Likely to Occur.** No suitable habitat was observed on or in the immediate vicinity of the project site for this species. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site, which would likely deter this species from using the any portions of the project footprint and immediate vicinity.
San Diego desert woodrat	*Neotoma lepida intermedia*	—	SSC	Group 2	Found in coastal scrub of southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies of coastal scrub. Abundant in rock outcrops, rocky cliffs, and slopes.	**Not Likely to Occur.** No suitable habitat was observed on or in the immediate vicinity of the project site for this species. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site, which would likely deter this species from using the any portions of the project footprint and immediate vicinity.
Silver-haired bat	*Lasionycteris noctivagans*	—	—	—	Forages in or near coniferous and/or mixed deciduous forests adjacent to ponds or other sources of water.	**Not Likely to Occur.** This species preferred habitat is absent from the site.
Southern grasshopper mouse	*Onychomys torridus ramona*	—	SSC	Group 2	Found in desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	**Not Likely to Occur.** No suitable habitat occurs on or in the immediate vicinity of the site. The observed soils within the majority of the site are highly compacted and disturbed as a result of agricultural practices. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Southern mule deer	*Odocoileus hemionus*	—	—	Group 2	Mule deer occupy to some extent almost all types of habitat within their range but, in general, they seem to prefer the more arid, open situations	**Not Likely to Occur.** There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.
Stephens' kangaroo rat	*Dipodomys stephensi*	FE	ST	Group 1	Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**Not Likely to Occur.** Marginal vegetation associations occur; however, The observed soils within the majority of the site are highly compacted and disturbed as a result of agricultural practices. There are a number of human-related and other disturbances present on and in the immediate vicinity of the site which would likely deter this species from using the area.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur
Townsend's big-eared bat	*Corynorhinus townsendii*	—	SSC	Group 2	Largely preys on moths over open pasture and forest canopy. Hibernates and breeds in caves and shelters.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.
Western red bat	*Lasiurus blossevillii*	—	SSC	Group 2	Prefers riparian areas dominated by cottonwoods, oaks, sycamores, and walnuts.	**Not Likely to Occur.** This species preferred habitat is absent from the site.
Western small-footed myotis	*Myotis ciliolabrum*	—	—	Group 2	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines and crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects. Individuals roost singly or in small groups in cliff and rock crevices, buildings, concrete overpasses, caves, and mines. They hibernate within the range occupied in summer.	**Not Likely to Occur.** No suitable roosting or foraging habitat occurs.
Western yellow bat	*Lasiurus xanthinus*	—	SSC	—	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Not Likely to Occur.** No suitable roosting or foraging habitat occurs.
Yuma myotis	*Myotis yumanensis*	—	—	Group 2	Uses open water near woodlands and forests. Also uses caves and mines.	**Not Likely to Occur.** No suitable roosting habitat occurs. This species preferred habitat is absent from the site. Marginal foraging habitat exists; however, this species is not likely to forage over the site.

Common Name	Scientific Name	Federal Status[1]	State Status[2]	County of San Diego[3]	Habitat Associations	Potential to Occur

[1] **Federal Status – FE =** Federally Endangered; **FT =** Federally Threatened; **FC =** Candidate for federal listing; **FD =** Delisted

[2] **State Status – CE =** State Endangered; **CT =** State Threatened; **CFP =** State Fully Protected; **SSC =** State Species of Special Concern

[3] **County of San Diego – Group 1** = Animals that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met; **Group 2** = Animals that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action; these species tend to be prolific within their suitable habitat types.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 5 miles) of the survey area. The diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the survey area. The survey area is located well outside the species known range and/or elevation limits.

Low Potential to Occur - There is a historical record of the species and potentially suitable habitat on or in the vicinity of the survey area, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species would occur. The survey area is located just outside the species known range and/or elevation limits.

Moderate Potential to Occur -The diagnostic habitat associated with the species occurs on or in the immediate vicinity of the survey area, but there is not a recorded occurrence of the species within the immediate vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity. The survey area is located within the species known range and/or elevation limits.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the survey area (within 5 miles). The survey area is located within the species known range and/or elevation limits.

Species Present - The species was observed on within the survey area at the time of the survey or during a previous biological survey.

Appendix C
Photographs

Photograph 1. View of northern portions of the survey area and entrance to the property proposed for development (APN 283-083-07), facing northeast toward Warnock Drive. Urban/developed land, non-native grassland and row crops are depicted in the photo.

Photograph 2. View of private driveway leading into the property, facing south. Urban/developed land, non-native grassland, row crops, and intensive agriculture (structures) are depicted in the photo.

Photograph 3. View of row crops, non-native grassland, and disturbed wetland in the northern portions of the survey area, facing west.

Photograph 4. View of non-native grassland, disturbed wetland, and eucalyptus woodland in the northeastern portions of the survey area, facing east. The unnamed drainage swale enters the property at this location.

Photograph 5. View of non-native grassland, disturbed wetland, and eucalyptus woodland in the northeastern portions of the survey area, facing north. The project proposes overhead connection to the existing power poles adjacent to Warnock Drive. No impacts to the disturbed wetland beneath the overhead route would occur.

Photograph 6. View of non-native grassland and row crops in the eastern portions of the survey area, facing south. One of many isolated boulder outcrops is depicted in the center of the photo.

Photograph 7. View of intensive agriculture, non-native grassland, and row crops in the southeastern portions of the survey area, facing southeast.

Photograph 8. View of non-native grassland and row crops in the southern portions of the survey area, facing southwest. Field/pasture lands in the southwestern portions of the survey area are depicted in the background right.

Photograph 9. View of non-native grassland, row crops, and field/pasture in the central and eastern portions of the survey area, facing west.

Photograph 10. View of row crops and agricultural facilities in the central portions of the survey area, facing northeast.